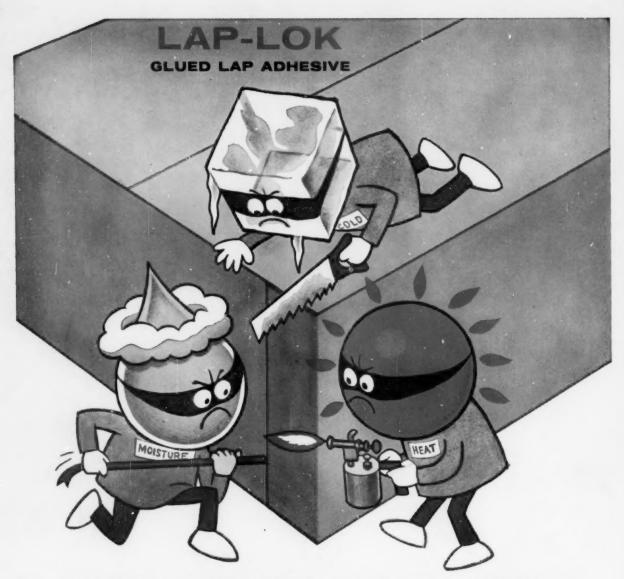
MODERN PACKAGING

NOVEMBER 1961





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Rainy or bone-dry, 140° F. to sub-zero temperatures, LAP-LOK bonds springy flaps safe and tight throughout. Take summer heat in warehouses or boxcars for example:

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MODERN PACKAGING

Complete
Guide
to the Packaging
Machinery Show
and ConferenceWorkshop
Cobo Hall, Detroit
Nov. 7-10, 1961

Supplement to the November, 1961, issue of MODERN PACKAGING

CONFERENCE-WORKS

Planned Maintenance - The Prof

Cobo Hall, Detroit, N

Wednesday, Nov. 8, from 9 a.m. to 12 noon, Room 2001

PREVENTIVE MAINTENANCE PAYS



EDWARD W. BRENNGLASS President Packaging Corp. of America

Speaking as a contract packager, Mr. Brennglass will reflect the prob lem of working against a low bid and a tight shipping schedule which permit neither the luxury of management frills nor the pain of

production interruptions. This West Coast company must always have its equipment in tip-top shape, ready to switch to a new job at any moment. Other packagers can profit from its experience.

WHAT THE TECHNICAL INSTITUTE OFFERS



H. RUSSELL BEATTY President Wentworth Institute

With successful operation of packaging machinery dependent on the human factor, this speaker will argue, the level of mechanics and maintenance supervision must rise as machines increase in speed and

complexity. Mr. Beatty also will explain the valuable contribution to effective maintenance of classroom and shop training in the basics of automated flow mechanical motion, electronic devices and controls, pneumatic and hydraulic operation, etc.

DO THE MACHINERY FOLKS UNDERSTAND?



G. DOUGLAS REED Vice President, Manufacturing McCormick & Co., Inc.

Carefully selected and properly trained machine operators, mechanics and leadmen are important to large producers of packaged goods, as is a continuous, organized

maintenance program. Here the question is whether machine designers and service engineers of machine companies recognize the design and instruction opportunities that can aid in reducing the maintenance effort and expense.

THE ROLE OF THE ENGINEERING COLLEGE



CORNELIUS WANDMACHER Dean, College of Engineering University of Cincinnati

Sound principles of management and engineering are the bases for profitable organization of individual responsibilities, competent execution of plans, harnessing of skills and understanding of the theory and

construction of complex equipment and processes.

AS THE MACHINE MAN SEES IT



LOUIS J. ROULEAU Field Service Representative Economic Machinery Co.

Is management aware of maintenance weaknesses and abuses? This speaker will use case histories to illustrate his answer. He will outline new training and teaching techniques and describe machinery manufacturers' methods for improving installation, demonstration, instruction and follow-up service.

SCHEDULE

Machinery Show

Tuesday, Nov. 7	10 a.m. to 6 p.m.
Wednesday, Nov. 8	10 a.m. to 6 p.m.
Thursday, Nov. 9	10 a.m. to 6 p.m.
Friday, Nov. 10	10 a.m. to 2 p.m.

Conference-Workshop

Wednesday, Nov. 8	9 a.m. to 12 noon
Thursday, Nov. 9	9:30 a.m. to 12 noon

KSHOP PROGRAM on

rofit Tool of Modern Management

it, Nov. 8 and 9, 1961

Thursday, Nov. 9, from 9:30 a.m. to 12 noon, Rooms 3042, 3043, 3044, 3045

Note: To permit intimate discussion of the subjects listed below, the total audience for the morning will be divided evenly into four groups. Each group will be assigned to a room presided over by a chairman and a moderator. Each moderator will lead discussions of one of the subjects listed below. During the morning, the moderators will move from room to room, thus changing the subject for each group from time to time and assuring that the entire audience has an opportunity to participate in discussions of all of the following subjects:

COMMUNICATIONS



Moderator: WALTER JACQUEMIN Product Engineer The Pillsbury Co.

Availability and proper use of the machinery-parts catalog will be emphasized in this session, along with procedures for obtaining the most value from the installation engineer. Also to be covered will be the ef-

forts that are necessary to train machinery personnel and to develop machinery knowledge.

MAINTENANCE FEATURES IN MACHINERY



Moderator: NORMAN YAEGER Central Engineering Colgate-Palmolive Co.

The importance of accessibility and the type of lubrication systems preferred will be discussed. Questions to be explored include: Is the machinery buyer willing to pay for stainless steel and other non-corro-

sive materials? Does the user want adjustments with which to make change-overs, or does he prefer quick-change, single-purpose machinery parts?

ADJUSTING THE MATERIAL, NOT THE MACHINE



Moderator: JOHN S. STOKES Installation and Service Manager Stokes & Smith Plant FMC Packaging Machinery Div. FMC Corp.

Do machine malfunctions require mechanical changes in equipment or should attention be focused on the packaging material being run?

A PACKAGED PLAN FOR EFFECTIVE MACHINERY MAINTENANCE



Moderator: GLENN R. ENCEL, Jr. Field Sales Manager Cryovac Co. Div. W. R. Grace & Co.

Discussions will cover the scheduling of machinery maintenance to prevent production interruptions, change-over procedures and the responsibility for preparing equipment prior to production runs. Also to be discussed

ment prior to production runs. Also to be discussed will be the responsibility for lubricating and cleaning machinery and the responsibility for deciding on parts replacement or adjustment required.

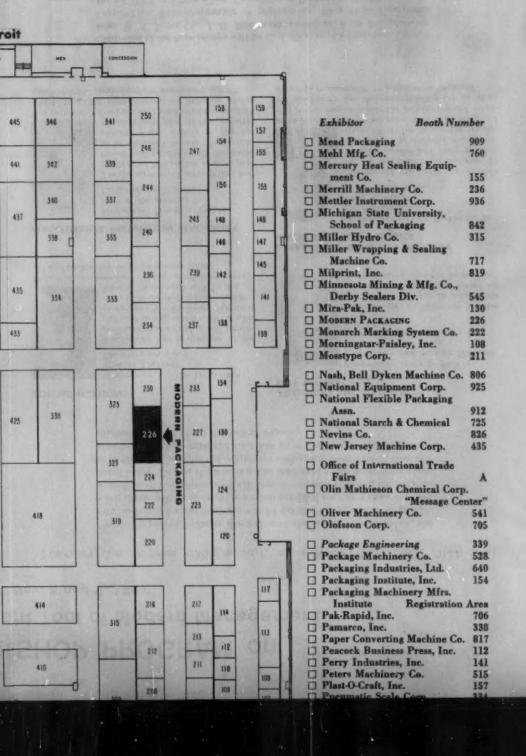
Chairmen of the four groups will be C. A. CLAUS, vice president, eastern sales, R. A. Jones Co.; J. H. BREZINSKI, president, Roto Bag Machine Corp.; JACK BLANE, manager of engineering, Ekco-Alcoa Containers Inc.; E. L. Kuhn, president, Consolidated Packaging Machinery Corp.

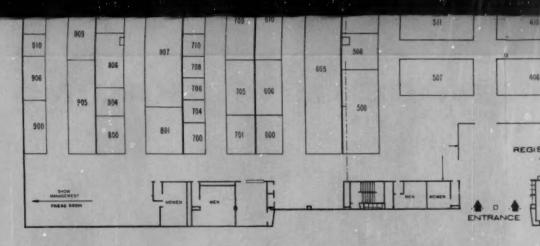
Lift here for floor plan and listing of exhibitors

4[™] PMMI Machinery Show

FLOOR PLAN showing booth locations and numbers at Cobo Hall, Detroi

					-				1			
964	953	852	839		749	648		639	538	545	446	
362		348		760					534			
	945	846	835			646		635		541	440	-
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934											121	
932	925	826	819	732	725	624			518			
928				730				619				
	923		817									
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016	913								508			
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⊠ Check booths you want to visit in this ALPHABETICAL LIST

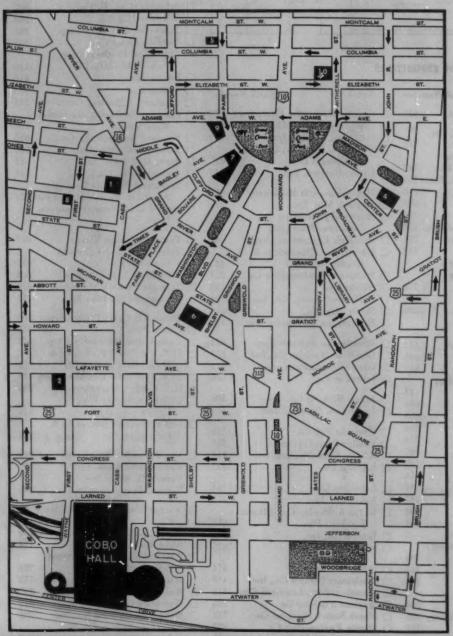
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0	A-B-C Packagi	ng Machine		C. I. T. Corp.		934	☐ Dusenbery,	John, Co., I
	Corp.		445	Cameron Ma		621	☐ Economic N	Sachinami C.
	A&M Tool & D	ie Co., Inc., Saga		Chain Belt (Co.	150		leyer Mfg. C
	Packaging M	fachinery Div.	616	☐ Champlain-Z	Zapata Plastics		Ekco-Alcoa	
		Machine Corp.	243	Machiner	y Co.	900		
	Algene Markin	g Equipment Co.	237	☐ Chese Equip	oment Co.	840		g Equipmen
	Aluminum Co.	of America	530	Cherrin-Bag		224		Machine Par
	Amaco, Inc. (1	Hofliger & Karg)	945	☐ Chisholm-Ry	yder Co. of Pa.	648	☐ Electronic l	
	American Can	Co.,		Clamco Div.	, Cleveland-Detroi		☐ Elgin Mfg.	
	Marathon D	iv.	340	Corp.		139	☐ Elliott Mfg	
	American Eng		Control I	☐ Clark-Aiken		410	☐ Errich Inte	
	Design Corp	р.	146	Climax Prod	ducts Div., Lodge	& ·	Errich Inte	
	American Eng	raving &		Shipley C	0.	438		
	Machine Co		158	Clybourn M	achine Corp.	233	☐ European I	nch Packagi
	American Ster	ilizer Co.	852	☐ Colt Packag	ing Machinery Co.	710	Institute	nen Fackagi
	American Visc	Control of the Contro	247	☐ Colton, Arth	hur, Co.	325	□ Ex-Cell-O (·
	Amsco Packag	ing Machinery	611	☐ Comet Indu	stries, Inc.	946	Exact Weig	
	Anderson Bro		836	Conapac Con	rp., Div. Roto		D Exact wer	in Scale Co.
	Apex Machine		148	American	Corp.	406	☐ FMC Corp.	
	Arabol Mfg. C			□ Consolidated	d Packaging			Machinery I
	Arenco Machin		518	Machiner		436		Control of the Contro
		U. S. Air Force,			quipment Corp.	728		Sharp Plant ry-Davis Plant
		Materials Han-		☐ Continental	Can Co., Flexible			rapping & S
	dling Div.		962	Packaging		239	Machin	
	Atlas-Vac Mac				Knowles Packagin	ng	Simplex	
	Automation M		134	Redington			The second secon	Smith Plant
	Avery Label C	orp.	953	Wrap-Kin		521	☐ Fairchild's,	
	AviSun Corp.		629	Crown Zelle			Faustel, In	
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		ering Co., Sub.	201	Cryovac Equ				lachine Corr
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			107		ers Div., Minnesota			kaging Insti
			221	Mining &		545		n Packaging
	Biner Ellison	Mfg. Co.	838		abel Devices	964	Div.	n r ackaging
	Bivans Corp.				a Co., Div. Dow	704	☐ Fry, George	H Co
	Bodolay, Stepl	hen, Inc.	906	Chemical		835	☐ Fuller, H. I	
	Bowers Patter	n Works	145	□ Dodge Fiber		250	LJ A GIRCE, IL. 1	J., C.U.
0	Brown Filling	Machine Co		Doughboy I		737	☐ General At	ropies Com
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-	Burton, John,		800	Film Den		921	☐ General Fo	
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410		20 10		Perry Industries, Inc.	141
		109		Peters Machinery Co. Plast-O-Craft, Inc.	515
U	24	109 208 108 107	H	Pneumatic Scale Corp.	157
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406		206 104 105		Potdevin Machine Co.	522
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		102		Resina Automatic Machinery	333
		201 000			905
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			L	Simplatrol Products Corp.,	240
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o., Inc.	635	☐ General Packaging Equipment 23	-		
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ry Co., Div. fg. Co.	418	☐ Gottscho, Adolph, Inc. 51	9 [636
ners Inc.,	410	Grace, W. R., & Co., Cryovac			535
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es Corp.	910	☐ Hamac-Hansella Machinery 83	19	American Broach & Machine	223
	639	☐ Hayssen Mfg. Co. 31	9 _	Swift & Co., Adhesive Products	
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ortland Div. d Corp.	330	Consumer Packaging 72		- W -11 - M - 11 - W7 - 1	007
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g Digest	702	Griffin Co.) 43		Scale Corp.	913
kaging		☐ Hi-Speed Checkweigher Co. 72		Tompkins' Label Service	606
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e Co.	220	☐ Horix Mfg. Co. 63	-	Union Bag-Camp Paper Corp.	309
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ery Div.	624	☐ Illumitronic Systems Corp. 94	-	United Shoe Machinery Corp.	822
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Plant	605	☐ Island Equipment Corp. 62	27	Materials Handling Div.	962
& Sealing		☐ Ivers-Lee Co. 60			
	611	☐ Jones, R. A., & Co., Inc. 50		U. S. Bottlers Machinery Co.	234
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ine Co.	754 105	☐ Kidder Press Co., Inc. 21			
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, Inc.	534	☐ Labelette Co. 74		Verner, B., & Co., Inc. Vertrod Corp.	205
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0.	730	☐ Lodge & Shipley Co., Climax		Warner Electric Brake & Clutch	
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ging Digest	708	☐ Lynch Corp. 42		Weldotron Corp. Western-Waxide Div., Crown	714
	346	☐ MRM Co., Inc. 51		Zellerbach Corp.	926
	748	☐ Machinery Service Co., Inc. 41		Wirth-Rhodes Corp.	752
		☐ Marathon Div., American Can 34		Wolverine Flexographic Mfg.	208
orp.	240	☐ Markem Machine Co. 33	35	Woodman Co., Inc.	815
d Machinery		☐ Marsh Stencil Machine Co. 73		Wrap-Ade Machine Co., Inc.	206
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ipment, Inc.	952	☐ Mateer, G. Diehl, Co.	1	Sperry-Rand Corp.	507

DOWNTOWN DETROIT showing Cobo Hall and major nearby hotels

HOTELS

- 3. Henrose
- 4. Madison-Lenox
- 1. Detroit-Leland
- 2. Fort Shelby
- 5. Park Avenue
- 6. Sheraton-Cadillac
- 7. Statler Hilton
- 8. Town House
- 9. Tuller
- 10. Wolverine



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GOODFYEAR

Vitafilm, a Polyvinyl chloride -T. M. The Goodyear Tire & Rubber Company, Akron, Obio

IN THIS ISSUE OF

NOVEMBER 1961 / VOLUME 35 / NO. 3

Changing concepts in machinery Advancing technology heralds a whole new era of mechanical development in the packaging field. The demand among packagers is for multi-function automated equipment giving efficient performance

at higher speeds. This article, a distillation of several months of research by Modern Packaging editors, reveals the broad new directions being taken by packaging machines today. Many of these developments will be in evidence at the Packaging Machinery Show early this month in Detroit. General interest: all machinery users.

115 Keyed to convenience

How to crack a tough, competitive market with a premium-priced product? One answer: Provide a packaging extra that adds use convenience and novelty appeal-such as the no-waste roll-up key that accompanies every collapsible metal tube of Vademecum imported Swedish toothpaste. Special interest: users of collapsible tubes,

Upgrading with color

Stanley Home Products invests in colorful new "feminine-appeal" surface design for packages that will never be seen in a store. The company believes that the modern, less-commercial look will upgrade general direct-to-home sales of its line of household items and grooming aids, while opening up a big potential gift market. Special interest: marketing, sales, designers.

FRONT FEATURES

- Background for Packaging Capsule comments and notes on significant news.
- **Equipment & Materials** Important new products from suppliers, including many to be seen at the PMM! Show.
- Sounding Board We ask the readers: What is the greatest unsolved problem in packaging?
- **World Report** What's news in foreign packaging.
- **Editorial Memo** The customer is usually right."

Tight-wrap film for produce
A new low-cost food grade of plasticized vinyl film is used by Food Mart to achieve tight, attractive wraps on fresh produce without the need for shrink equipment. Broader packaging applications are suggested by the non-fogging material's inherent qualities of stretchability, cling, crystal clarity and toughness. This New England supermarket chain also reports film economies, improved package appearance. A production-methods article: foods, produce.

Machine tips for cellophane

From Du Pont comes advice on small, practical modifications in machinery that can bring new efficiency to cellophane wrapping under special conditions. These hints can increase package production, cut costs and enhance cellophane's level of performance. Involved are minor adjustments or attachments any user can install on his line. By Walter M. Farrelly. Special interest: all cellophane users.

Heat-transfer labeling moves in-plant



A milestone in heat-transfer printing is reached with S. C. Johnson's automatic set-up for three different-size, different-shape polyethylene bottles. The company reports per-unit decoration costs 1/2 cent below pre-labeled bottles. Packaging efficiency is aided

and storage requirements reduced by stocking plain containers which are decorated as needed. A production-methods article: machinery.

New action on 'deception'

The Packaging Institute issues an important policy statement to member companies, urging them to keep close watch on consumer attitudes and to re-examine all packages to guard against possible charges of deception. Meanwhile, in Washington, the Senate hearings into "deceptive packaging" are reconvened. Scheduled to appear are management representatives from supplier companies, supermarkets and others. Packagers still must wait to make their views known. General interest.

MODERN PACKAGING, Executive and Editorial Offices, 770 Lexington Ave., New York 21, N.Y. Phone PLaza 9-2710

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PAGKAGING

THE COMPLETE AUTHORITY OF PACKAGING

130 New machinery at the Show Here is a four-page pictorial sampler of some of the significant new packaging machinery that can be seen in operation at the 1961 PMMI Show. General interest: all machinery users.

38 Enter: throw-away plastic milk bottles



Long awaited plastic milk containers now are a commercial reality. Pioneer user is a Midwest dairy, with a paper-capped gallon container vacuum formed from 50-mil polystyrene sheet. As a possible indicator of things to come, plastic-

packaged milk is selling well at a price several cents above competitive containers. Meantime, an English dairy reports success with a 4-oz. molded-polystyrene bottle for quick-frozen cream. Special interest: foods, dairy, all liquids.

144 High-fashion approach

Valuable suggestions for all packagers of do-ityourself products are contained in the dramatic redesign program that has doubled sales of the David Traum needlework line. The new packages feature glamorous full-color illustrations which are calculated to inspire women to knit. Special interest: notions, textiles, sewing aids.

To Detroit: for the 4th Machinery Show The machines, materials and services of 214 companies will be on display at Cobo Hall Nov. 7-10, in Packaging Machinery Mfrs. Institute's biggest biennial show. An innovation this year is a two-day conference-workshop on maintenance. This show preview includes an alphabetical list giving details on exhibitor displays. Inside the front cover is a convenient fold-up program for you to take to Detroit as a complete, easyto-use guide to the show and conference-workshop. General interest: all machinery users,

Miscellany

Package Designers' Council symposium (p. 224) . . . Southwestern Packaging Exhibition in Dallas (p. 227) . . . F&DA clearances and extensions of food additives are announced (p. 233).

TECHNICAL & ENGINEERING

Close control of machine design and construction can mean better performance at lower cost. What's the secret? You can find out in this detailed study of Procter & Camble's packaging-machinery standards and specifications program—considered to be an industry model. The principles can be applied by packagers large and small to every purchase of equipment. By Robert J. Kelsey.

159 Planned preventive maintenance There's universal packager value in Bristol Labs' careful program of training and techniques that stops mechanical trouble before it starts. The complexity of today's high-speed equipment makes such a system an absolute necessity. By Douglas M. Reid, John S. Parker and William C. Risser.

163 Oriented cast PVC film Reynolds' independent-axis orientation of PVC produces a high-yield, thin film with increased tensile strength and controlled shrinkability that can be used in a variety of applications. The oriented film retains PVC's basic desirable performance properties. By Aldo B. Galvanoni.

168 Questions & Answers
Advice on readers' technical problems.

DEPARTMENTS

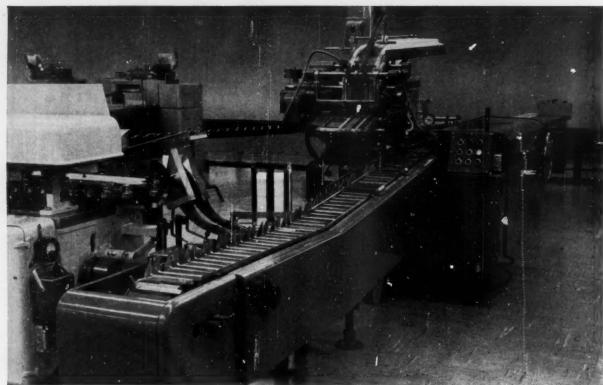
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 How better packaging can be had for less.
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 Use this guide to find news in the ads.



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CARTON-KING automatically transfers tubes from tube filler to pockets of article conveyor. Leaflet is inserted around tube cap. Cartons are fed from magazine and expanded by new high-speed rotary motion carton feed. Tubes and leaflets are smoothly and continuously inserted into cartons, which are then closed and ejected.

Leeming anticipates 240% efficiency increase with new Redington Carton-King

New concept in automatic cartoning combines high speed and versatility

Thos. Leeming & Co. recently installed the new Redington CARTON-KING in their packaging line for toothpaste and other products at the Parsippany, N.J., plant. Reporting on this new line, Mr. Robert Clark, Vice President, says, "We expect this new equipment to give us a 240% increase in operating efficiency."

The CARTON-KING is a totally new concept in fully automatic, high speed, continuous motion horizontal cartoning. It handles a wide range of carton sizes at speeds up to 600 per minute on sustained production. "Building block" construction

allows the basic machine to be equipped with many special attachments to meet specific package requirements.

The CARTON-KING is the latest example of Redington engineering and design know-how acquired during 65 years of leadership in the cartoning field. For complete details of the new CARTON-KING... or the most efficient solution to any packaging problem, write Redington Division.

See the new CARTON-KING, Booth 521 P. M. M. I. Show



CROMPTON & KNOWLES PACKAGING CORPORATION

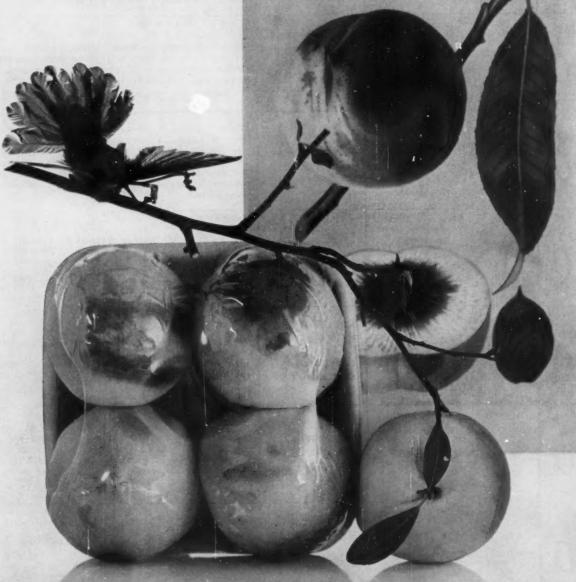
WRAP-KING DIVISION

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"customer handling" once and
for all. New safety for the
look of freshness that sells.



packages for performance

DOBECKMUN

The extraordinary sparkle and transparency of Trycite are now joined by new "shrink" qualities that mould it firmly around fine fruits and vegetables. The powerful images of freshness and color come through, yet always remain beautifully beyond reach. The successful new way to cut damage and pilferage losses so costly to marketers of everything from peaches to pears to onions. Count on Dobeckmun for creative packaging ideas that work harder. THE DOBECKMUN COMPANY, A Division of The Dow Chemical Company, Cleveland 1, Ohio - Berkeley 10, California - Offices in most principal cities.

*T. M. The Dow Chemical Company

...wrapping, bundling, cartoning & banding machines from SCANDIA

100		Medium-priced fully automatic wrapping machines for single packages, multiples and bundle-wraps.	Surprisingly fast models in this newly designed Series for wrapping, multiple wrapping and bundling operate in the speed ranges of machines costing much more. Feature Scandia's three-sides method of folding and sealing the packaging material with or without opening-tape. Produce a strong wrap for bundles and permit varying collations for best display and easy shelf stacking. Especially adaptable for supermarket multiple and Holiday wraps.
300	THE RESERVE TO THE RE	"Tray Topper" hood- ing and crimping machines for apply- ing foil covers to frozen dinner trays.	Three basic models in Scandia Model 300 Series apply foil tops to frozen dinner trays in continuous one-level motion at speeds up to 120 trays per minute. Engineered to meet rigid food industry specifications.
400	-	Fully automatic car- toning machines.	Model 400 Series, the latest packaging machinery development of Scandia's engineering department, introduces a new concept to the field of cartoning: the forming of a carton blank around the product automatically. Designed for cigar pocket-packs initially, other models are now available for cartoning cigarette packages and multiples of other products.
500		Low-priced wrap- ping machines for single packages, multiples and bun- dle-wraps.	Model 500 Series wrapping machines are three-quarters automatic in operation and are ideal for lower volume production, or for use while developing new packages and packaging techniques. Machines in this series are the backbone of Scandia's Rental Program.
600	1	Adjustable high- speed fully automa- tic wrapping ma- chines for single and multiple pack- ages.	There are six Models in this "work horse" Series to choose from for overwrapping the full range of package sizes—from razor blade tucks to cigar 5-packs to cake mixes and frozen foods.
700		High-speed turret- type wrapping ma- chines.	Especially designed to meet rigorous specifications of the cigarette industry, more than 1,000 of these machines are now in round-the-clock service throughout the world turning out universally recognized cigarette packs with handy opening-tape. Other Models in the 700 Series are used to wrap pipe tobacco, candy, cough drops and drugs.
800		High-speed heavy- duty fully automatic bundling machines.	Using kraft paper or film, Models in this Series are used for high-production bundling of a wide variety of products in the drug, toiletries, tobacco, and food fields.
900		Custom-built high- speed automatic banding machines.	Originally developed for the soap industry to band multiple units of bar soap at high speed, other Models in the 900 Series are available for banding stationery, stacks of labels and for "premium" work.

Call or Write:

SCANDIA PACKAGING MACHINERY COMPANY

North Arlington, N. J. WYman 1-8400

Visit Scandia's exhibit, Booth 511 at PMMI Show,

Cobo Hall, Detroit, November 7-10.



Action is the reaction to Nibroc PRINT-PAK. This whiter, brighter flexible package carries your product's appeal so well that your product gets carried away - in quantity.

Pressmen know the superior printing qualities of Nibroc PRINT-PAK. Its faster, trouble-free runs plus its sales attraction advantages are the reasons "Name Brands" — from coffee to baked goods to dog food — select Nibroc PRINT-PAK. Write for samples and complete information to Dept. MP-11.

Bring your product and customers together with Nibroc PRINT-PAK.

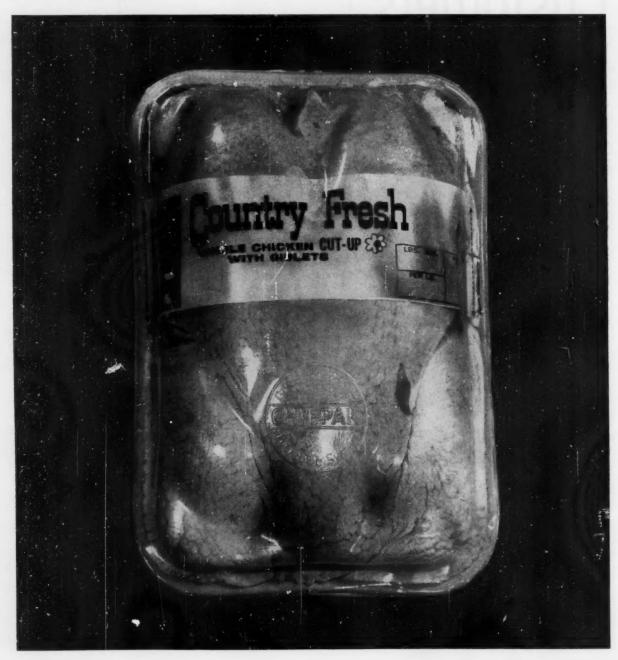
Another Quality Product of

BROWN TO COMPANY



New polystyrene pack boosts poultry sales

One of the world leaders in poultry processing equipment, Gordon Johnson Company, in cooperation with the Plax Corporation and skilled fabricators, has developed the most advanced poultry package since chickens first went to market. It's called the Super J-Pack, and it can be formed from thin, rigid sheets of Dylene® polystyrene. When the see-through lid is heat-sealed to the yellow tray, the package becomes air-tight; liquids and flavor are locked in. The meat can be marketed fresh or fresh-frozen. The consumer sees what she is buying because Dylene has good transparency, and will not discolor. Dylene makes a strong package, one that will ship well and offer the consumer full visual appetite appeal. Similar packages will also be appropriate for meats, dairy products and baked goods.





Foam trays simplify toy packaging

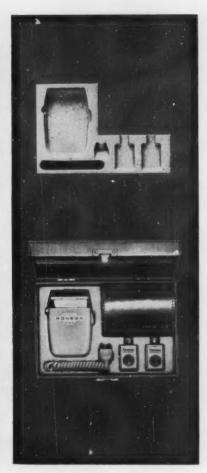
A. C. Gilbert Company uses Dylite® expandable polystyrene trays because they completely eliminate costly interior packing materials. Dylite trays are strong, good looking, easy to assemble and load—they save on labor costs. They also cut shipping costs because they're extremely lightweight.

DYLITE packages come in any size or shape; they fit firmly around the product and protect it from shipping damage. They make an attractive display because their smooth, colorful surface won't smear, chip or flake. DYLITE parts molded by: Sullifoam, Inc., Willow Grove, Penna.



Put \$170.00 in your pocket

High-speed packaging machines now make it possible for you to save real money-as much as \$170.00 on each 1,000 pounds of the crisp, clear film you may now be using-and still have a better package! How? Use film made from SUPER DYLAN® high-density polyethylene and take advantage of its unidirectional, straight-line tear, low permeability and clarity. Furthermore, it is unaffected by extremes in temperature and humidity. Handkerchief wrapped in CONOLEX® film extruded by Flexible Packaging Div., Continental Can Co., Newark, Ohio, on a Roto Wrap Model B, manufactured by Conapac Corp., New York, New York.



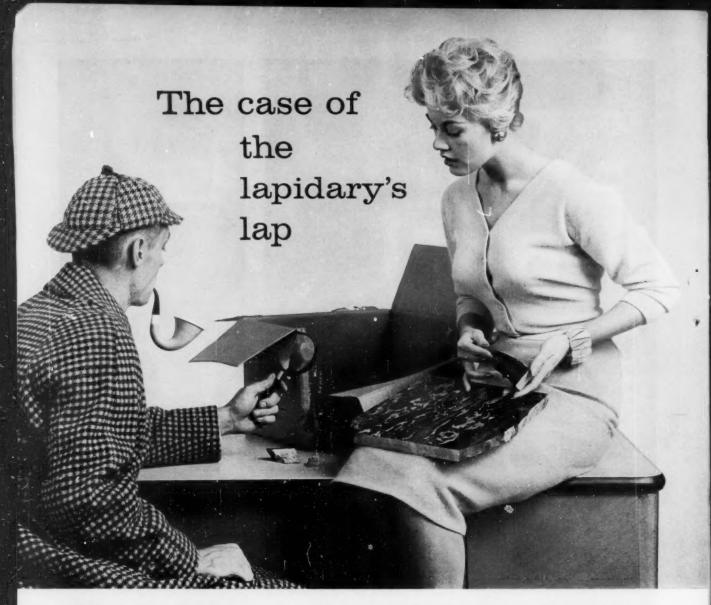
Ronson calls it their luxury pack

The new Ronson CFL 300 electric shaver package is one of the best-looking you'll ever find on any store counter. The simulated leather outer case, which can later be used as a dresser jewelry box, has a convenient display tray molded from lightweight Dylite® expandable polystyrene. Specially molded niches house the shaver, cord, travel case and travel-size bottles of lotion. The shaver is held firm, completely cushioned from shipment damage. Since DYLITE molds to fit any odd-shaped product, packaging time and money are saved. Ronson also uses DYLITE to cushion their electric hair dryer and shoe polisher. Platform molded by: Sullifoam, Inc., Willow Grove, Pennsylvania.

KOPPERS PLASTICS

No matter what your packaging problem, investigate our complete line of polyethylenes and polystyrenes. Contact Koppers Company, Inc., Plastics Division, Dept. 1537, Pittsburgh 19, Pa.





FEARLESS FULLER: What do you know about laps, Miss Watson?

MISS WATSON: Well, I've sat on quite a few.

FEARLESS FULLER: I'm referring to glued laps used on corrugated boxes, not men's laps, Miss Watson.

MISS WATSON: I suppose this has something to do with your latest case.

FEARLESS FULLER: Yes, I call it the case of the lapidary's lap.

MISS WATSON: What's a lapidary, Fearless?

FEARLESS FULLER: He's a person who deals in precious and semi-precious stones.

MISS WATSON: Pray tell, what happened to the lapidary's lap?

FEARLESS FULLER: Well, it seems he was sending some finely-polished agate to a customer and shipped it in this corrugated

MISS WATSON: And . . . ?

FEARLESS FULLER: Well, the lap adhesive was not Fuller's and the box came apart at the seams. Naturally the polished agate fell to the floor and ruined the lapidary's work.

MISS WATSON: I imagine he was disenchanted with his box maker after this occurred.

FEARLESS FULLER: He was ready to stone him to death.

MISS WATSON: How did you solve the problem, Fear-

FEARLESS FULLER: I recommended that the box maker switch to Fuller's Adhesive #565, the finest glued lap adhesive around,

MISS WATSON: Oh, Fearless, you're amazing.

FEARLESS FULLER: Elementary, my dear Miss Watson.
A Fuller man always knows the solution to adhesive problems.

and the problem was solved.

Got an adhesive problem? Call your nearby H. B. Fuller plant—and ask for "Fearless" Fuller.

H.B. Fuller Co.

INDUSTRIAL ADHESIVES

St. Paul, Minn., MI 6-8641 • Kansas City, Kansas, FI 2-3615 • Dallas, Texas, RI 7-7315 • Cincinnati 23, Ohio, MU 1-5420 • Detroit, Mich., LO 7-5980 • Atlanta, Ga., MA 2-3502 • Tampa, FIa., 45814 • So. San Francisco, Calif., PL 6-5450 • Portland, Ore., CA 6-3493 • Los Angeles, Calif., AN 3-2113 • Chicago 22, Ill., MI 2-6300 • Buffalo 7, N. Y., TR 5-6366 • Memphis 7, Tenn., JA 6-4212 • Linden, N. J., WA 5-2272 • Also Toronto, Ont., Can. • Winnipeg, Man., Can. • Fuller Adhesives International, Nassau, Bahamas



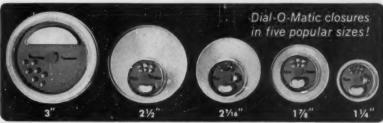
CLEVELAND CONTAINERS
HELP
Johnston
SALES!

The ideal product-container combination is vitally important in the grocery field...where competition is the keenest!

These smartly styled Cleveland Containers give Johnston products visual impact... positive protection... functional design... at

low unit cost! Both 8½-ounce containers are made of strong, spirally wound fibreboard covered with attractive two-color labels. The "Sugar Thins" container has a special deep-drawn metal plug to assure freshness. The "Cracker Meal" container features our patented two-color "Dial-O-Matic" closure, clicking to open and closed positions. If you want to up-style the packaging of your product, our Engineering Department will gladly assist you.

"DIAL-O-MATIC" CLOSURES cap the packaging of many granular products to perfection! Made of plastic, the wheel smoothly glides and locks in the positions of sift, pour and closed. Recessed rim permits stacking. Available in several styles, popular diameters, and in many interesting color combinations.



THE

CLEVELAND CONTAINER

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ALL-FIBRE CANS · COMBINATION METAL AND PAPER CANS SPIRALLY WOUND TUBES AND CORES FOR ALL PURPOSES

Plymouth, Wis.

CLEVELAND CONTAINER CANADA, LIMITED Jamesburg, N. J.

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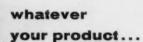


Write for our latest

PACKAGING BROCHURE!

Oneida puts Power in flexible packaging!

The power to attract shoppers' eyes and hands to your product—that's the basic quality a successful package must have. And Oneida knows the knack of putting pulling power into packaging. It's done with the perfect combination of materials, imaginative design, quality craftsmanship—and a battery of electronically controlled, 6-color combination flexographic-rotogravure and letterpress equipment. We've been doing it for over 30 years for America's leaders... and we would be glad to show you how to put pull-power into your packaging. We're ready to serve you from four strategic plants across the nation.





by Oneida



with SELL!







neida PAPER PRODUCTS, INC.

10 Clifton Blvd., Clifton, N. J.

Baltimore, Md. • Centralia, III. • Los Angeles, Cal. • Sales Offices in All Principal Cities

CONVERTERS AND COLOR PRINTERS OF QUALITY PACKAGING from Glassine, Cellophane,
Polyethylene, Vinyls, Parchment, Sulphite, Foil Kraft, Waxed, Coated and Laminated Materials.

The Quality Image











SAUCE



Hunt





PICTURED ABOVE ... FINE PRODUCTS OF HUNT FOODS AND INDUSTRIES, INC.

Look to the Leader in Aluminum Packaging

REYNOLDS ALUMINUM

Whether aluminum foil takes the form of labels or protective wrapping, its brilliant beauty provably enhances The Quality Image of a product. And Reynolds makes the most of aluminum's colorful splendor...with unequalled design and printing resources. Let us prove it to you. Call any Reynolds sales office. Or write Reynolds Metals Company, Richmond 18, Virginia.





Watch Reynolds exciting TV programs on NBC: the Dick Powell REYNOLDS ALUMINUM SHOW every other Tuesday; SAY WHEN, weekdays; ALL STAR GOLF - in living color - every Saturday.







A 26-inch bubble of DAVIS BUTYRATE

No trouble fitting this outsize toy with a vacuum formed bubble package to match. Chanal Plastics, vacuum formers, used Davis Butyrate sheeting to make this extra-large bubble for DeLuxe Reading Corporation's Playmobile toy. Davis Butyrate was selected because it filled the bill in every respect—the crystal clarity that displays the product to best advantage . . . the strength and rigidity to stand up under unusual shipping, display and handling conditions.

Davis Butyrate and extruded acetate sheets, rolls and film come in all gauges — transparent, translucent or opaque — and are ideal for all kinds of vacuum forming applications. We have been supplying the packaging industry with plastic materials for over 40 years, and we welcome the opportunity to help packagers with their problems. Let us send a brochure describing our facilities and the many plastics we produce, together with details of their properties and applications.

PLAYMOBILE MANUFACTURED AND PACKAGED BY DELUXE READING CORPORATION, NEWARK, N. J.
BUTYRATE SHEETING BY JOSEPH DAVIS PLASTICS CO. • BUBBLE FORMED BY CHANAL PLASTICS, REGO PARK, N. Y.

JODA

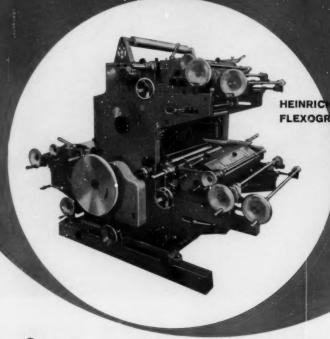
Joseph Davis

PLASTICS COMPANY

430 Schuyler Avenue, Kearny, N. J.

Phone: WYman 1-0980 New York: BArclay 7-6421

bag-vertising*



HEINRICH ALINA-X-30
FLEXOGRAPHIC ENDPRINTER

One to four colors
for printing widths
from 20" to 50"
Printing repeats,
9" to 31%"
30" drying distance
between colors

COLORFUL ADVERTISING PRINTED ON ALL TYPES OF BAGS

Alert converters are cashing in on the increased demand for multicolor printed bags as an effective advertising medium, featuring store name, brand names, on-sale items and other specialties.

THE HEINRICH ALINA-X-30 FLEXOGRAPHIC ENDPRINTER
IS THE PERFECT PRESS FOR BAG PRINTING

Installations of 10 to 25 of these outstanding Endprinters are in use in several plants and repeat orders are the rule. Converters everywhere are installing HEINRICH Endprinters. When may we serve you?

Send for brochure listing specifications and full information.

HEINRICH EQUIPMENT CORP.

Burry's Biscuits were here

Curar

Burry's move fastest...thanks to perfect package design and printing by Cellu-Craft

Burry's goes all out to win the Vending Machine Sweepstakes! To nose out competition, they put the whip to their quality cookies with brilliant, coin-arresting packaging by Cellu-Craft, When there's no one around to sell your product, that's when you need Cellu-Craft most. Find out why Cellu-Craft's integrated design-through-production facilities can help you enter the Winner's Circle, too.

CELLU-CRAFT PRODUCTS COMPANY

New Hyde Park, New York Telephone PRimrose 5 8000. Sales Offices in principal cities

DESIGNING of flexible packages.
PRINTING: Gldlux® Gravure.
Process, Line & Tone Flexography
on Cellophane, Polyethylene,
Glassine, Extrusion Coatings,
Laminations, Acetate, Pilofilm,
Foil, EXTRUSION COATINGS AND
LAMINATIONS on Cellophane,
Foils, Mylars, Papers,
CONVERTING, Rolls, Sheets,
Bags, Pouches, Envelopes



provide protection

marathon

Today's packages must protect products in many ways, in many places. Your reputation...and repeat sales...depend on it.

As a leading supplier of food packaging, Marathon is a source you can depend on for protective packages, for example:

Marathon Pilot trays keep meat fresh, do not absorb valuable juices; Marathon "bake-in" foil-laminated trays deliver cakes oven-fresh; instant milk packages must withstand rough handling in shipping and store stocking... keep the powder dry; pouch materials must be carefully selected to keep tobaccos moist, aromatic.

When it comes to *product* protection . . . protection of *your name*, remember: *Marathon has the answer*.

Marathon, A Division of American Can Company, Menasha, Wisconsin. In Canada: Marathon Packages Limited, 100 Sterling Road, Toronto 3.



you can't beat marathon

The LOWEST PRICED Shipping Room Electric ON THE MARKET!

THE REVOLUTIONARY

DERBY 310" ELECTRIC

GUMMED TAPE DISPENSER





YOU CAN'T BEAT THE DERBY "310" FOR ECONOMY AND SIMPLICITY

WRITE DEPT. MP11
FOR FREE DEMONSTRATION

The new Derby "310" electric dispenser was designed for general shipping room operations requiring a constantly changing variety of lengths of tape. Dispenses both reinforced and Kraft tapes in widths up to three inches. There are no dials to set, no adjustments to make. A touch delivers any length instantly! Its very simplicity and ease of operation makes operator-fatigue a thing of the past! The Derby "310" is priced lower than any other electric on the market, yet has all the quality features and dependable performance that are built into all Derby dispensers. Prove it in your own shipping room without obligation!

DERBY SEALERS DIVISION

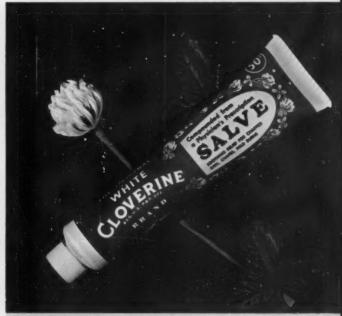
MINNESOTA MINING AND MANUFACTURING COMPANY DERBY, CONNECTICUT



Only Thatcher brings you all 4



pol'y prop'yl ene Lightest of all solid plastics. Heat resistant Thatcher polypropylene tubes can be sterilized without distortion. Excellent moisture retention.



lin'e · ar pol'y · eth'yl · ene One of the most dependable of plastics. Gives good performance under almost all conditions. Excellent temperature resistance, high and low.



vi'nyl For lubricating oils and greases, Thatcher vinyl tubes are unsurpassed. Take advantage of vinyl's pleasant texture, surface gloss and ease of printing.



pol'y eth'y lene If your product requires a tube that stays resilient even at low temperatures, pick polyethylene. Better than average water vapor resistance.

Which plastic tube is best for your product? Only Thatcher makes all four. Only Thatcher has the know-how to tell you which is best for your purposes. Call us...write us...we are happy to help. A great package is a great Idea.



THATCHER GLASS MANUFACTURING COMPANY
375 Park Avenue New York 22, New York

CELON DIVISION, Muscatine, Iowa/PLASTIC CONTAINERS, New York, N.Y./MCKEE DIVISION, Jeannette, Penna.



WHICH ONE COMES FROM FIBREBOARD?

Which carton was created by a team of beverage <u>specialists</u> — including designers and draftsmen, salesmen and scientists? Which carton comes from the company where every major industry is covered the same, sensible way: by teams of experts in that specific field? Which carton, in short, comes from Fibreboard? Your customers can pick it out—and do.

The carton from Fibreboard is Fibresix...
the brand-new home for beer that offers
more display area (in the end panels where
it is needed!), ships safer, cuts packaging
costs. Shouldn't your cartons come from
this kind of company? Write: Fibreboard
Paper Products Corporation, 475 Brannan
Street, San Francisco. (Also New York,
Chicago, Los Angeles, other major cities.)

WIRZ knows what plastics can do ...



to create a distinctive container in the modern manner for cosmetics and a host of household and personal products. A case in point: the popular roll-on bottle in linear polyethylene ... handsomely designed to meet the closest orifice and ball-seat tolerances.

Quality packaging for added sales appeal has been the specialty at Wirz for 125 years. Today, Wirz knows what plastics can do. Let a representative work with you to create an exclusive container design... or adapt a standard Wirz container to your special needs.



A. H. WIRZING.

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125th Anniversary

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RIGID CANS AND IMPACT EXTRUSIONS...AMERICAN EXTRUSION DIVISION, BROOKLYN, N.







If they're made with A-C Polyethylene, they have more gloss, strength, and resistance to scuff and water

Sturdier dairy cartons. Cartons coated with A-C® Polyethyleneparaffin blends can withstand rough handling. Leaking, flaking and bulging are virtually eliminated. Smooth plastic-like feel, pleasant to the touch.

No more "fiber scratch." Wax coatings for appliance and fine furniture cartons, made with A-C Polyethylene, avoid "fiber scratch"—and the need for costly liners.

Super-high gloss for food wraps. A-C Polyethylene imparts super-high gloss to waxed paperboard, often makes over-wrappings unnecessary. Ideal for frozen food, ice cream, bread wrappers.

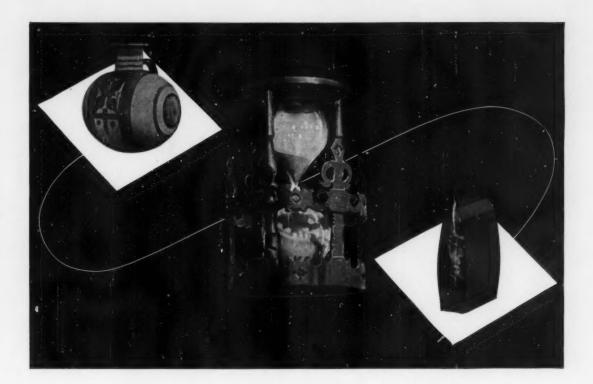
To get better packaging, specify A-C Polyethylene. To make better packages, use A-C Polyethylene. For more information, write us today for complete details.

PLASTICS DIVISION

Dept. 618 MPK 40 RECTOR ST., NEW YORK 6, NEW YORK IN CANADA: ALLIED CHEMICAL CANADA, LTD., MONTREAL



BASIC TO AMERICA'S PROGRESS



PAST, PRESENT AND FUTURE

in transparent film packaging . . . tremendous experience amassed over the years, and
continuous research today, enabling us to
lead the way in new development — these
are the factors that guarantee you the most
knowledgeable, most useful opinion on
your own particular packaging problem.
Do you want advice on the transparent
packaging film that will suit your product
best? We have scientists and technicians,
the foremost in their field, to help you
select the appropriate one. They may
suggest cellulose film in one of its many

types. Perhaps you may need BCL polythene film. Or your product may be an 'awkward' one—something you thought could never be packaged visibly...like a liquid, a cream or paste, a powder; acid, alkali, grease, salt; a heavy, sharp article. In this case we should probably recommend polythene-coated cellulose film or one of our new plastic films.

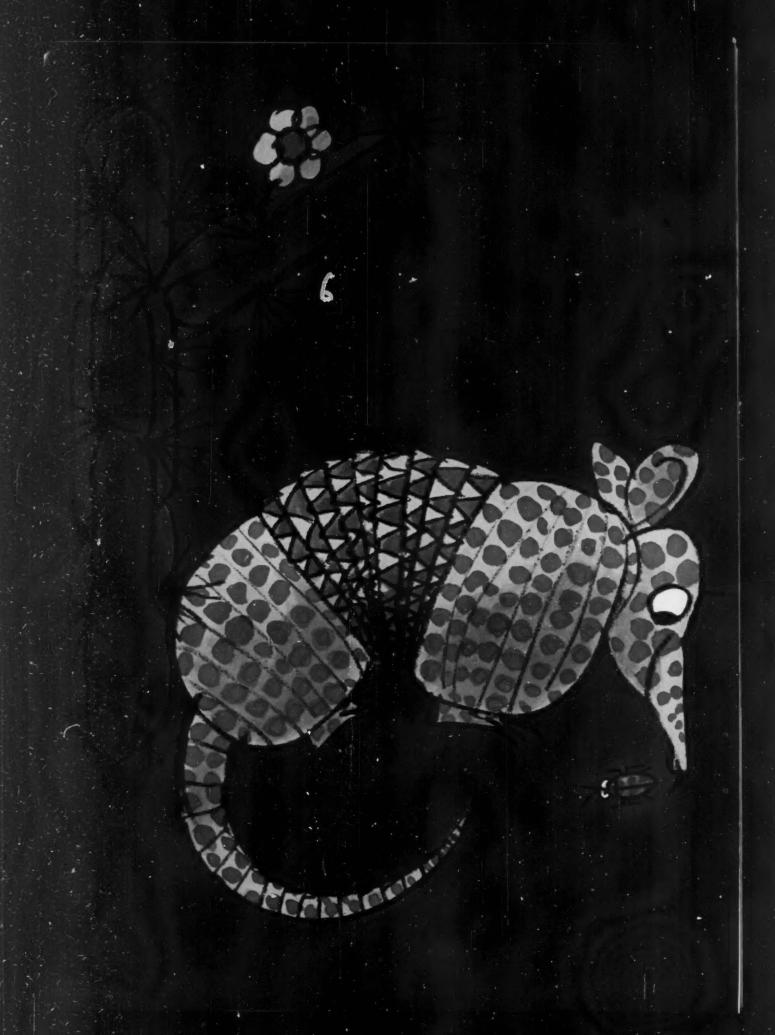
Contact us now for further details and samples of our films. And if you need practical help to use them to best advantage, we are ready and keen to co-operate with you.



BRITISH CELLOPHANE LIMITED

Henrietta House, 9 Henrietta Place, London, W.I, England

'Cellophane' is the registered trade mark of British Cellophane Limited in the following countries: U.K., Jersey and Guernsey, Commonwealth of Australia Ceylon, Cyprus, Denmark, Eire, Federation of Malaya, Federation of Rhodesia and Nyasaland, Gibraltar, Hong Kong, Iceland, India, Jemaica, New Zealand Pakistan, Singapore, Trinidad and Tobago, Union of South Africa.



The Perfect Container doesn't just Happen!

W ISE Armadillos seldom lose out on the field of battle. They just pick smaller opponents! And, when the odds are against them—they rely on the "suit of armor" nature thoughtfully provided. Another case of a container—that does what it's supposed to do...best!



New design . . . with convenience in mind!

Canco's new "MiraGuard Safety Rim"* ham can is an excellent example of a container that does what it's supposed to do . . . best! It features a safe rolled edge . . . makes raw-edged cans obsolete. Even a child can handle this new can safely!

Easier to open, too!

The "MiraGuard Safety Rim" ham can has a tear strip that winds smoothly because it is self-tracking. Canco has even redesigned the winding key. Now it is shaped to fit a woman's hand for easier roll opening.

To help boost <u>your</u> sales and profits, put Canco's aggressive team of research, manufacturing and marketing experts to work for your products.

*Trademark-American Can Co.

GREAT CONTAINER IDEAS COME FROM

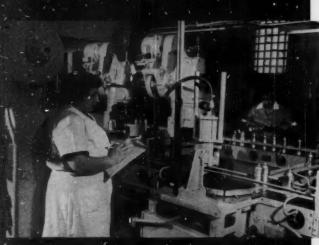


CANCO DIVISION

AMERICAN CAN COMPANY

QUALITY CONTROL

is the essence of FLUID'S filling operations



· Quality control check point in coldfilling aerosol line in FLUID PLANT.

Uniform continuity of quality of customers' products is a prime objective of our filling service. "Let's look at the record"-for instance, the quality control record illustrated here. It shows the weights of sample aerosols removed at brief intervals from a filling line during an actual run. It is easy to see that such uniformity means real savings to the manufacturer.

In the FLUID filling plant, quality control inspectors are stationed at fixed points on filling lines. In addition, roving inspectors make frequent checks of samples taken at random.

Manufacturing chemists and contract packagers since 1921, FLUID'S long experience serving many of the world's largest manufacturers assures you of filling service that is unsurpassed. Our packaging engineers are qualified to give expert advice in selection of the best form for dispensing a given product-liquid or pressure, spray or foam. In our research laboratories we have solved the most intricate packaging problems.

Send for further information regarding our contract liquid and aerosol filling service. Write or telephone: Fluid Chemical Company, Inc., 872 Mt. Prospect Avenue, Newark, New Jersey — HUmboldt 4-1000.

Packaged by

FLUID Chemical Company, Inc.

MANUFACTURING CHEMISTS SINCE 1921

WRIGHT Check List For Packaging Solutions



Wright welcomes the opportunity to become your partner in packaging progress. Tell us your requirements and we will check them against our wide line of standard equipment, three examples of which are shown here. Or should a custom approach be required, Wright's 83 years of experience and proven performance are at your command. Your inquiry is invited.

PAK-RAPID

Automatic pouch forming and filling is the new, efficient way to package spare parts, electrical components, and hardware. This unit is ideal for short or long runs and uses any heat sealable film, paper, or foil.



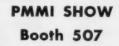
Wright NT Weigher

Cereal and cracker manufacturers are updating their packaging lines with this completely automatic rotary net weigher. It packages in containers the total output of a continuous process with superior weight reliability.

Wright Machinery Company engineers are available to custom this system or other Wright equipment to your requirements.



M-2 Hy-Tra-Lec® Weigher When semi-automatic packaging is desirable but you want high speeds and precision accuracy, this system with its new Speed Fill Turret merits investigation.



OFFICES: RIDGEFIELD, N. J. LAGRANGE, ILL. SAN FRANCISCO, CALIF. DURHAM, N. C.

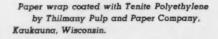
WRIGHT MACHINERY COMPANY LIMITED, DAVID ROAD, COLNBROOK, BUCKS, ENGLAND DALLAS, TEXAS

WRIGHT MACHINERY

DIVISION OF SPERRY RAND CORPORATION

Wrap coated with TENITE POLYETHYLENE keeps products damp or dry







Just a thin coating of Tenite Polyethylene on wrapping paper adds a lot of resistance to moisture and grease. Auto parts stay dry. Plant roots stay moist. And the paper stays clean and fresh-looking.

Heat-sealability is another advantage.

Tenite Polyethylene is formulated for quick, tight closing on packaging machines. Chemically inert, the coating is unharmed by the contents of packages. And its toughness and flexibility help strengthen the paper and protect against scuffing. With so many useful properties, Tenite Polyethylene is often applied as a coating or lamination to foil and films, too.

When extruded as unsupported film,

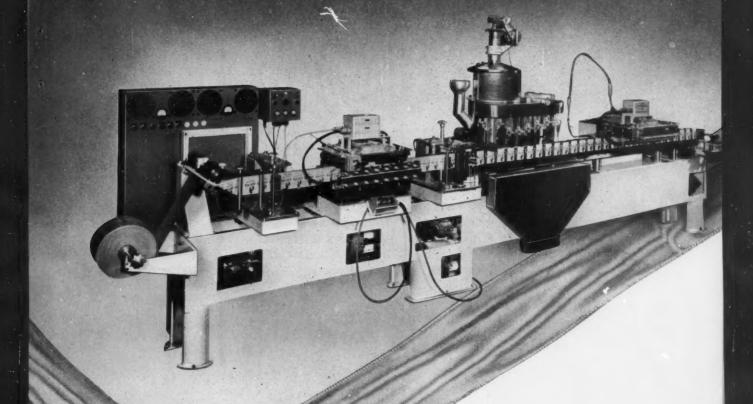
Tenite Polyethylene provides a packaging material of remarkable gloss and clarity. Blow molded or injection molded, it has been formed into a host of tough, colorful squeeze bottles, containers, and closures.

The versatility and economy of Tenite Polyethylene may include several benefits for your packaging. For information and aid in applying it to your needs, write EASTMAN CHEMICAL PRODUCTS, INC., subsidiary of Eastman Kodak Company, KINGSPORT, TENNESSEE.

TENITE

an Eastman plastic

Riegel Creative Climate for Tomorrow's Packaging



...the new ideas come from

Riegel

500 pouches per minute...

perfectly formed, filled and sealed!
That's the amazing capability of this new machine by Bartelt Engineering Company, a Riegel subsidiary. The fastest known pouch former, the Bartelt Continuous Motion Packager has a gentle action that frees web and machine alike of stop and start stresses. This maintains strength and barrier properties of the packaging material, and adds to the life and reliability of the machine.

Packaging that solves problems is a Riegel tradition.
Whether you need greater packaging machine
efficiency... or eye-stopping sales appeal
... or quality-protection for food products... or
greater packaging economy... Riegel can
help you. The next few pages may give you ideas.

RIEGEL PAPER CORPORATION, 260 MADISON AVE., NEW YORK 16, N.Y. Specialist in the packaging of foods, drugs, and soft goods Flexible packaging...carton board...folding cartons...carton liners

Diet powders for cats and dogs! Fresh and wholesome in special Riegel Paper

New Dari-Dri natural dried milk dietary supplement for cats and dogs is protected with a special Riegel poly-coated paper, printed one color. Pouches formed and filled on machines by Bartelt, a Riegel subsidiary.

The hygroscopic nature of Dari-Dri's powdered dairy product requires just the right combination of protective qualities

and economy in pouch packaging...precisely met by a special Riegel paper and coating.

We've a flair for thinking of every product as something special, and developing for it the one best packaging answer...be it pouch paper, glassine, foil, film...or combination...printed, coated or plain. Write for more information today . . . for the new ideas come from Riegel.

Flexible Packaging Division RIEGEL PAPER CORP., 260 Madison Ave., NYC 16 Flexible packaging materials for foods, drugs, chemicals

DARI-DRI

PET FORMULA

Easy Feeding Directions for Cats

Dry Feeding

Feed 1/2 packet per cut of day. Sprinkle over or mix regular dry or control cat for

Liquid Feeding

Pour one packet into dry pint container. Add water-16 full leaving room to shake or a Feed as you would nor sed whole milk

Cats and kittens love the sw taste of DARI-DRI.

REALTHY PET IS A HAPPY PET ... A HAPPY PET IS FUN!

Fruit of the Loom Socks introduce new, color-coded packaging by Lassiter

Coded in bold colors for easy quick identification in supermarket merchandising, these sales-winning new polyethylene bags for Kayser-Roth are designed and produced by Lassiter.

What makes a package succeed in self-selection merchandising? It takes special skill... and Lassiter's wide knowledge in this field is good reason why Kayser-Roth gave their new Fruit of the Loom sock program to Lassiter designers. As the leading specialists in soft-goods packaging, we know how to create packages that catch the shopper's eye, promote sales, and fit your production set-up.

This kind of practical creative packaging can help you. Write or phone Lassiter today.

Lassiter Sales RIEGEL PAPER CORP., 350 Fifth Ave., NYC 1 Designers and producers of film, foil, paper and paperboard packaging, inserts, riders, labels, bands and tags. Riegel Paper SPECIALISTS IN SOFT GOODS

Colgate Dental Cream...another quality product that now uses Riegel Foldcote*

Color brilliance that takes your breath away! It's Colgate's new dental cream carton, printed on strong, clean Riegel Foldcote®. Three color letterpress by Federal Paper Board Company, Inc., Carton Division, Washington, Pennsylvania.

For noticeably stronger, brighter cartons...and extra eye-appeal...try Riegel's outstanding new full-bleached

carton stock..."Foldcote." Super-white for color brilliance, super-smooth for high fidelity reproduction, super-strong for rugged, rigid packages that keep that clean look.

Your future, too, can be brighter with "Foldcote." Ask

Your future, too, can be brighter with "Foldcote." Ask for samples and information. Ask too, about other Riegel solid bleached boards. Export inquiries invited. Call Riegel today...for the new ideas come from Riegel.

Pulp and Paperboard Division RIEGEL PAPER CORP., 260 MADISON AVE., NYC 16 "Foldcote" machine-coated carton board Albacel® and Astracel® pulps Riegel SOLID BLEACHED CARTON BOARD DENTAL CREAM WITH GA

BARTELT packaging machinery is on the job for Betty Crocker

of General Mills

For good-ness sake, housewives depend on the sealed-in freshness of Betty Crocker Mixes.

These tasty General Mills dessert products retain their flavor in high quality packages . . . formed, filled and sealed with Bartelt Automatic Packaging Machinery.

As the modern convenience foods market grows, more and

more leading processors are turning to Bartelt for superior flexible packaging.

Those who want the very best in packaging . . . those who need *creative packaging* . . . recognize the Bartelt tradition of quality and dependability.



we'll be at the pmmi show

BOOTH 425

visit with our representatives
in the lynch corporation
booth , numbers 425 & 429...
and see a stretch-pak®
packaging machine in action.

packaging division

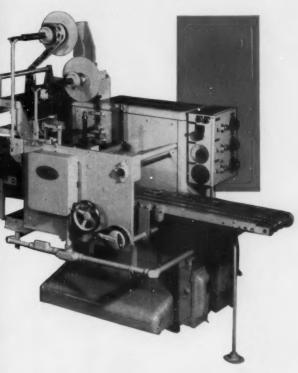
DOWNINGTOWN PAPER COMPANY



DOWNINGTOWN, PENNSYLVANIA



See the Dial "155" Flexopaker® at PMMI Show in Detroit's Cobo Hall November 7-10, 1961. Booth 620



Dial 9 Different Pouch Sizes... even while the machine is running! with Battle Creek's "Dial 155" Flexopaker®

Dial any one of nine different package lengths with just a flick of the wrist. A quick manual exchange of two gears extends the length range another nine sizes. A third change permits nine more different lengths. Thus 27 lengths in three standard ranges-3" to 15", 41/2" to 221/4" and 6" to 30"-can be effected in minutes. For pouch width variations, merely change the roll of film and adjust the side sealing wheels by cranking them to any width between 3" and 15". This eliminates downtime associated with manual substitution of dies and subsequent wait for heat build-up in the sealing wheels. This instant flexibility of the "Dial 155" makes it the ideal machine where any operation requires numerous runs of many different items. No other pouch packaging machine offers such quick changeover to such a wide range of sizes.

Fully Automatic-At speeds as high as 80 per minute, the compact Dial "155" economically heat seals thin, irregular shaped articles between two continuous strips of heat sealable or cohesive material. The pouches can be individually severed or left joined together in continuous strips with perforations between for separation.

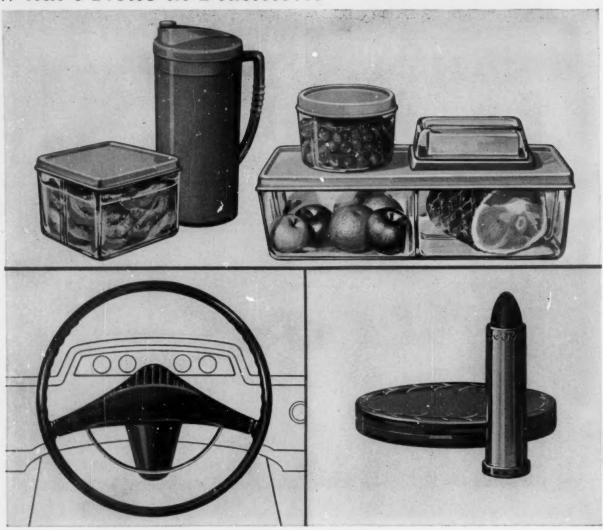
For Many Products in Diverse Industries—It easily handles a broad cross section of products in the hardware, textile, food, automotive parts, paper and industrial goods fields. Such items as gaskets, frozen pastries, bearings, electrical tape, syringes, envelopes. greeting cards, hosiery, combs, small toys and costume jewelry are a few of those successfully processed. The Dial "155" may be ideal for your product . . . inquire about it today.

PACKAGING PACKAGING

BATTLE CREEK packaging machines, inc., BATTLE CREEK, MICH.



What's News in Plastics...



Specify **Escon** polypropylene for low odor pick-up

Escon has no taste or odor of its own and is highly resistant to stain and odor pick-up. This important property makes Escon an excellent choice for food storage containers and packaging, compacts and lipstick cases—even automobile steering wheels.

Escon polypropylene offers manufacturers a bal-

anced combination of properties for high-speed, profitable production—including resistance to dynamic fatigue, high strength, chemical and abrasion resistance, and many more. Expert technical assistance is always available. For full details, write to Enjay, 15 West 51st Street, New York 19, N. Y.

EXCITING NEW PRODUCTS THROUGH PETRO-CHEMISTRY

ENJAY CHEMICAL COMPANY

A DIVISION OF HUMBLE OIL & REFINING COMPANY









Busy selling every minute

Using the potent display space of its tea cartons for selfmerchandising is a central principle in the marketing plans of Salada-Shirriff-Horsey, Inc.

On a white background chosen for contrast with surrounding competition, Forbes' designer placed a large red logo for maximum brand impact, and below, steaming tea in an elegant cup and saucer as a symbol of quality and taste.

Panels announcing cents-off deals, one-cent sales, and a variety of premium promotions are superimposed on the face design, with further elaboration on the back panel.

Behind this newsworthy packaging program stands close collaboration in design, press scheduling, and inventory control.

Call Forbes for such services to your packaging program, and for Forbes'-quality printing by lithography and gravure.



FORBES LITHOGRAPH CO.

BOSTON, NEW YORK, PHILADELPHIA, CHICAGO, CLEVELAND



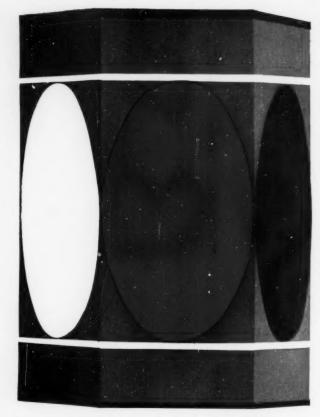


BASALADIATEA ILA

CARTONS BY FORBES-QUALITY LITHOGRAPHY

LINER BY FORBES-QUALITY GRAYURE





SP'INKLE, SP'INKLE, LITTLE STAR

Comfort sprinkling from a can, beauty twinkling in a bottle...packaging. Stellar performer on the supermarket stage, the drugstore shelf, the factory shipping platform...packaging. \$20 billion market-made-of-many-markets, practically any product's "best foot forward"...packaging. Behind the label, no solo flights in decision, simply the profit-interests of many men, stimulated by the positive influence of their favorite magazine. An extraordinary publication...for its editorial conscience, its sheer utility of content, its immaculateness of presentation, its youthful desire over 34-years to always give more than is expected of it. Current and notable, its "Operation Genesis," a continuing program of reader education (regular field calls by a specially trained staff of 88 university professors) to help your best customers and prospects read more easily and use more effectively, all the good they find each month in...

MODERN PACKAGING

The Complete Authority of Packaging—A BRESKIN PUBLICATION 770 Lexington Ave., New York, N. Y.

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with MILPRINT GAS PACKAGING MATERIALS! Subtle flavors, colors, aromas, nutritional values—the very elements that give your product its unique character—are first to be attacked by the oxygen in air normally present in food packages! Gas packaging prevents this flavor fadeaway by replacing air with nkagen, carbon dioxide or other inert gases during packing...so your product reaches your customer exactly as you intended it should. (And gains a new lease on shelf-life and customer satisfaction as well!) Milprint research adds laminated gas packaging materials to the thousands of custom-built combinations developed to meet specific marketing needs in more than 60 years of serving America's best-known brands. No other source offers so wide a material variety, so many printing processes—or so much experience in creating packaging "firsts!"

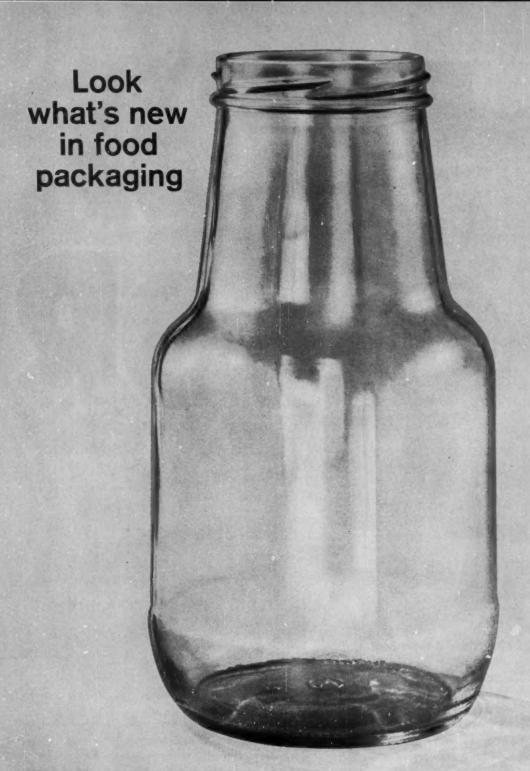
Plan now to review your packaging regularly with Milprint experts . . . learn how

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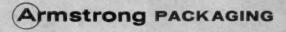
MARKETING POWER

Milprint Inc. General Offices, Milwaukes, Wis.
Sales offices and plants conveniently
located across the nation.



A JAR WITH SOMETHING OLD AND SOMETHING NEW. The "old" is the very practical rounded square shape. This feature of the familiar Ritter decanter saves shelf space and keeps the label facing forward on the shelf. The new is the depressed panel for a bright foil label . . . to protect it from scratching and to keep it shining-new. Which goes to show that it's possible to make even a very good package just a little bit better. May we offer ideas for your next package?





Background for Packaging

soon in tinplate prices. General cut of 2 cents per pound in aluminum ingot (from 26 to 24 cents) late in September came as a shocker to steel companies, arriving as it did after a 12-cent hourly boost in aluminum wages on Aug. 1. Steel must now hold down prices of all steel products that compete with aluminum, or risk the possibility of losing customers. One of the big can companies is already importing some tinplate from Japan and Wales. Note: Aluminum reduction so far affects only the raw metal and is not likely to be reflected in fabricated aluminum foil containers.

Aluminum price cut practically insures that there will be no increase

Price trends elsewhere in packaging are upward. Corrugated-container manufacturers have effected a 10% increase which appears likely to stick, in contrast to last boost in 1959 which was soon washed out. Multiwall bags are generally up about 4%. In plastics, polystyrene producers appear to be going along with 1-cent-per-pound price boost on general-purpose and medium-impact resins, but with no change in high-impact or extra-high-impact compounds. On the other hand, polypropylene trends downward and likely will continue so as production capacity builds up.

Cost-cutting speed-up in can making lies just ahead with perfection of equipment that will continuously weld and cut off can bodies, working from a coil of metal sheet. Both major can companies now have such equipment, with commercial operation slated for early 1962. Not only does welding eliminate the unsightly soldered side seam, but production speed is trebled, moving up to 2,000 cans per minute. The process is said to work equally well with aluminum, regular or ultralight tinplate, or blackplate.

Toiletry manufacturers are up in arms about a new regulation of the Food & Drug Administration which has the effect of bringing foods, drugs and cosmetics under the Federal Hazardous Substances Labeling Act even though the act itself specifically exempts these products. A paragraph inserted into regulations for Hazardous Substances Labeling (which F&DA is charged with enforcing) cites the exemptions and adds "... but where a food, drug or cosmetic offers a substantial risk of injury or illness [in customary use] it may be regarded as misbranded [if] its label fails to reveal material facts" of consequence and fails to alert the user to the dangers.

Watch the trend toward pre-applied adhesives for all types of packaging. The use of cartons and flexible packages with pre-applied adhesives, to be re-activated by heat, electronics or pressure alone, will insure a package with the proper weight of adhesive coating, properly applied, with its continuity better controlled for optimum adhesion. All adhesive problems thus can be turned over to the converter.

Observe the growth of supplier-sponsored seminars to brief packagers on latest technical trends in this fast-moving world. Excellent example was the seminar conducted by Marathon, division of American Can Co., in Wausau, Rothschild and Neenah-Menasha, Wis., late in September. This was the fourth such seminar held by Marathon and the 170 executives and engineers of packager companies who attended had a truly professional short course in paper, paperboard and flexible packaging, combined with plant and laboratory tours over a three-day schedule.

Containerization standards give packagers a mark to shoot at for maximum utilization of shipping space. For van-sized freight containers, the American Standards Society and the American Society of Mechanical Engineers have agreed on standard lengths of 10, 20, [Continued on page 46]

Notes, quotes
and comments.
An editorial
feature





Party treats at the peak of freshness and flavor...

thanks to many different AVISCO®
CELLOPHANES

Count on Avisco cellophane to provide maximum protection for all of these party treats and hundreds of other products. For cellophane is not merely a single film, but a family of films. Many different types are available—each one tailored to meet a specific product requirement.

For example, cookies and mints need flavor and aroma retention. Cheese and nuts require exceptional greaseproof and gasproof qualities. Pretzels need crispness retention. Bread calls for a smooth, moistureproof wrap. Pickles in brine and vacuum packed luncheon meats require a lamination of cellophane and other films. There are types of Avisco cellophane for all these purposes and many others.

What's more, only cellophane offers the combination of low initial cost, pure transparency and sparkle, superb printability, and unmatched performance on packaging machines. The result? Total packaging economy.

Get all these benefits in packaging your product. Contact us for an appointment with our representative in your area or a selected cellophane converter specializing in your field.

Specify "AVISCO" when you order printed and/or fabricated cellophane from converters.



AMERICAN VISCOSE CORPORATION, FILM DIVISION, 1617 PENNSYLVANIA BOULEVARD, PHILADELPHIA 3, PA. SALES OFFICES ALSO LOCATED IN ATLANTA, BOSTON, CHICAGO, DALLAS, LOS ANGELES AND NEW YORK.

VISIT US AT BOOTH #247 AT P.M.M.I. SHOW

30 and 40 ft., with width and height in all cases to be 8 feet. Now it is possible to dimension shipping packages and shipping loads to fit these increasingly popular bulk containers without waste space.

Keep an eye on polyvinyl chloride sheet for blister packaging, now that a German process for extruding non-plasticized PVC has been licensed in this country. The material, which has never been successfully produced in this country by extrusion, offers many of the same characteristics as extruded acetate and butyrate, at lower cost, and has advantages in clarity, grease resistance and heat sealability. It is not so strong as butyrate. However, PVC resin costs as little as 17 cents per pound, compared with 52 cents for acetate and 62 cents for butyrate.

Questions about the Folding Carton Competition have been resolved within the Folding Paper Box Assn. It will continue as usual in 1962, but with some tightening of the judging standards. Winners in 17 end-use classifications will be determined by a combined score on printing, construction and surface design, and up to three over-all "Medal Awards" will be granted.

See what's going on in frozen foods: Ultra-cold liquid nitrogen (minus 320 deg. F.) is being used not only for flash freezing of foods for better quality, but in improved refrigerated delivery trucks said to maintain a constant temperature as low as minus 20 deg. F. This may eliminate one of the greatest dangers to consumer acceptance of frozen foods: the deterioration of quality which results from failure to maintain fully protective temperatures throughout the distribution cycle.

Significant note on the trend to convenience foods: According to the National Potato Council, Americans now spend more for frozen potato puffs, instant whipped potatoes and other packaged convenience potatoes than they do for the fresh product. The total was \$756 million for processed potatoes last year, as against \$732 for fresh spuds. Ten years ago the total outlay for potatoes was 50% less and the fresh variety outsold processed by three to one. The rise can be attributed chiefly to dehydrated and frozen prepared potatoes, which have grown from almost nothing 10 years ago to 44% of all processing and 13% of the total potato market today.

A packaging showcase is planned for the New York World's Fair scheduled to open in 1964. A \$10-million, five-story food-industry pavilion will include a "Foods of Tomorrow" supermarket in which manufacturers will be encouraged to display and test their most advanced ideas in packaging for food products. The Fair is planned to run for two years and is expected to attract 70 million visitors from all over the world.

New figures on gift giving show the size of the year-round market for gift-suitable packaging. The Journal of Marketing reports that, exclusive of Christmas, Easter or religious occasions, Americans annually give or exchange some two billion gifts. The typical family of four will give an average of 56 gifts a year, including 10 birthdays, four births, three weddings, five anniversaries, three graduations and three housewarmings. Total value of these gifts is estimated in excess of \$2 billion.

It's time to take a good, hard look at the special packaging requirements of discount stores, now that these operations are being expanded from appliances to foods, drugs and almost every type of consumer product. A recent survey revealed the following characteristics of discount markets, all affecting packaging: heavy emphasis on multiple prices; all beverages in one-way containers; almost everything preferred in tray pack or case pack.

Waldorf knows Packaging FOR THE RETAILER



Waldorf knows how to design and make packages and cartons that retailers can identify quickly, open easily and handle rapidly. For better packaging at a saving, write or phone Waldorf today. Remember, Waldorf's packaging experience can save you money.

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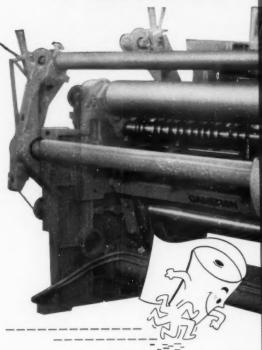




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Your Selling Image is Projected

When Your Cartons are Made With...

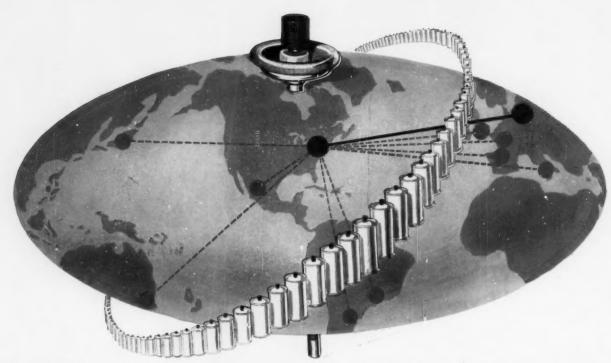
"Colling Cost

There's display magic in the brilliant beauty of this outstanding boxboard. As The Norwich Pharmacal Co. found out, after adopting No. 90 Ultragloss for the cartons shown above, its plus advantages of high visibility, of quality product impression, are definitely reflected in sales results. Printable to crisp perfection by any process, this is the only high-gloss folding boxboard made with the know-how of a boxboard specialist mill. Blank and printed samples of it are yours for the asking ... from us or from most good boxmaker firms.

The carrons shown above were produced by The Mid-York Press, Inc. of Norwich, N. Y.



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Att: Mr. Helmuth Schiedlich Metalurgica Matarazzo SA Rua C. Pinto 575 Sao Paulo

FRANCE Att: Mr. Renaud Bouffe' Societe Elekal 3 Avenue Erlanger Paris, 16 eme

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Att: Dr. Pedro Junyent Industrial Iberica Quimico Farmaceutica SA Loreto 8 Barcelona 15

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- 3. Uniformity permits high-speed overwrap and sideweld bagging.

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Film Division

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P. O. Box 37-Paramus, New Jersey . Colfax 2-6500

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STREET PAK

display packages put the mood and the message clearly across!

save 35°



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60° Moisture Base 75° Cold Cream 1.35 Regular Price



1.00 Pius U.S. lax .10 Total \$1:10



Nevins' Stretch-Pak display packages is the way it surrounds each product with a sales-stimulating display — without obstructing the customers' clear view of your product! Your product appears to float in air, making it easy to see, easy to buy. Bright, easy-to-spot Stretch-Pak display packages can be hung from pegs...or made self-standing for stacking. Full-dimensional Stretch-Pak display packages can enfold more than one product on the same card (as Pond's did) in virtually any size and shape. And your products can be packaged in the Nevins' plant or on Nevins' Stretch-Pak machines purchased for your own in-plant packaging.

To put the mood, the message — and your sales goals — **clearly** across, use Nevins' Stretch-Pak display packages. Write or call today for the full story!

The newest, fastest **NEVINS STRETCH-PAK PACKAGING MACHINERY**. See it in action yourself at the P. M. M. I. SHOW, Nov. 7-10, COBO HALL, Detroit, Michigan. Booth #824 - 826 - 828.



STRETCH-PAK Division

THE NEVINS COMPANY



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Executive Sales Offices and Plant: Clifton, New Jersey • PRescott 9-1700

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Corrugated (with side liners) or V3C stacks 8-10 high

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CUBITAINER

The Candywrap®-Pack

was shown for the first time last year and has already become the hallmark of many progressive confectionery manufacturers. The candy, in this "new" presentation, sealed in a tiny cellulose film bag, has an appetising and appealing appearance; opening it is child's play. The new style of wrap combined with multi-colour printing of the wrapper (photo electrically registered) offers a very attractive presentation. The "Candywrap" handles up to 500 pieces per minute. The Hamac-Hansella Machinery Corporation, Grand & Ruby Avenues, Palisades Park, N. J., will be pleased to let you have full details and place all our experience at your disposal.

Hamac Hansella

Hamac-Hansella Maschinen GmbH, Düsseldorf, Western Germany



New Exclusive Plax Liners

SOME PRODUCTS NEED EXTRA PROTECTION

Egg membranes form a protective inner sac around the egg's vital liquids. And now Plax builds exclusive inner liners into plastic bottle "shells" for hard-to-package liquids. These liners inhibit permeation and extend shelf-life for many pharmaceutical, cosmetic and drug products. Liquids that never could use plastic containers before can cash in on plastic's good looks, light weight and bouncy durability. This inner liner principle, coupled with the adaptability of Plax containers, could well apply to your products. Let us help.



POAX



Cut down label waste with day-to-day Tickometer imprints-



Why pre-print on labels specifications which can change, make labels unusable? / Reduce label waste and inventories by Tickometer imprinting for current production. / The Tickometer imprints ingredients, weights, sizes, codes, prices. Speed: several every second. / Handles most paper weights and finishes and light card stock. Prints from type, electros, rubber mats. Feeds and stacks automatically. / Set in minutes without tools. Can be used by anybody. / Sold or leased. PB service available from 320 points. / Ask any PB office for a demonstration, no charge. Or send coupon for free booklet.

Also available, Model 4800 Package Imprinter for cartons, bags, containers, folded packages, etc., up to 7,500 an hour. Set without tools. Easy for anyone to operate. Cuts inventories and waste. Ask for a demonstration. Or check coupon for booklet.



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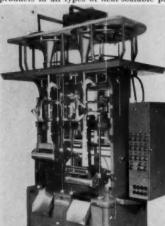
EQUIPMENT

& MATERIALS

The 4th Packaging Machinery Mfrs. Institute Show opens in Detroit's Cobo Hall on Nov. 7. As in the past, this four-day biennial show introduces significant developments in machinery and materials for all packagers. Much of the equipment described below will be seen for the first time at the PMMI Show. Wherever possible, items to be exhibited there are so identified. For additional information, see "New Machinery at the Show," pp. 130-133 of this issue.

High-speed, simplified pouch packager

A new Expand-O-Matic vertical pouch-packaging machine by Hayssen is said to form, fill and seal a wide variety of products in all types of heat-sealable papers, films and foils

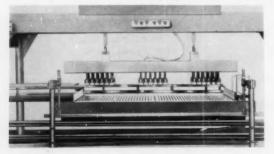


at speeds of up to 200 pouches per minute. The high production rate of the new doubletube machine, which will be shown at the Machinery Show this month, is said to result from rocker-arm drive mechanism utilizes the weight of one drawbar to counterbalance the other draw bar, thus elimina:ing the need for balancing weights. A simplified drive mechanism

no cams or springs and all shafts are ball-bearing mounted, the supplier notes. The unit also incorporates a reportedly new and simplified air-operated jaw assembly that eliminates 90% of the moving parts formerly required. A new continuous pull-off mechanism for the parent roll of packaging material is cited for keeping web breakage at a minimum. For single-tube operation (100 pouches per minute), the unit is furnished with only one draw bar and trube-forming mechanism. However, the basic frame and drive mechanism are the same as the double-tube model and the production rate of a single-tube model can be easily and quickly converted (doubling production rate) at any time and at a saving of as much as 60% of the cost of a new machine, says Hayssen Mfg. Co., Sheboygan, Wis.

Versatile automatic uncaser

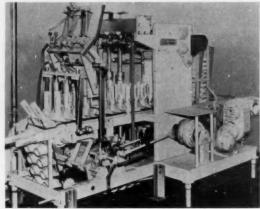
The latest model of Climax's Universal uncaser will be on display at the Machinery Show this month. The unit is said to be fully automatic and can be equipped with two to five



uncasing heads, to handle the same number of cases simultaneously. This gives the uncaser a capacity of up to 1,000 containers per minute, the supplier claims. The machine is built to handle cans and metal-end foil-laminated fibre containers and utilizes magnetic pick-ups. However, the unit can also be equipped with pneumatic pick-up heads for use with beer and soft-drink bottles of various sizes. For milk bottles and similar containers, a mechanical pick-up device is used. For details, contact Climax Products Div., Lodge & Shipley Co., 3055 Colerain Ave., Cincinnati 25.

Automatic, conveyorized volumetric filler

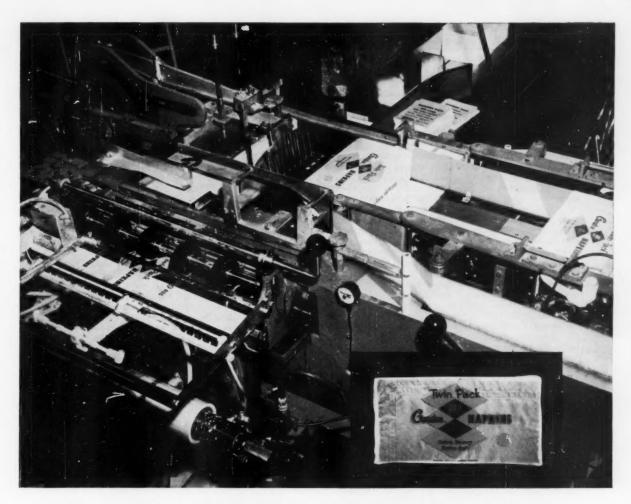
A new No. 27 Colton-Hope multiple-head automatic, conveyorized volumetric filling machine will be shown for the first time at the Machinery Show this month. The heavy-duty unit is said to be especially suited for filling tubes or cartridges with highly viscous or ropy materials, such as caulking and greases. The machine is available in 2-, 4- and 6-nozzle designs and reportedly will fill up to 15 containers



per minute per nozzle. Containers up to 2 in. in diameter and 9½ in. long can be handled on this machine, the supplier notes. The model pictured is equipped with a magazine-type cartridge loader, open hopper, magazine-type cap loader and vacuum-cap placer, including a vacuum pump and an automatic ejector. It has bottom-up fill and an automatic control to halt filling if no container is in place. Arthur Colton Co., 3400 E. Lajayette Ave., Detroit 7.

Automated polystyrene-foam molder

The recently organized Champlain-Zapata Plastics Machinery, Inc. (See Modern Packaging, October, 1961, p. 154) will have on display at the Machinery Show its automated polystyrene-foam molder. The unit is designed for molding polystyrene beads into a wide range of foam-packaging components. It is said to be capable of reducing mold cycles to as low as 20 seconds for thin-wall objects. The unit also features automated control of the entire molding cycle and a newly designed pneumatic filling mechanism of reduced size and weight. Increased versatility for the accomodation of virtually all types of molds and a new matrix bar system for maximum utilization of the mold mounting area also are cited by the company. Automatic handling of finished molded products and a manual cycle control to shorten set-up time are said to further insure ease of operation. The unit is adaptable to integrated, continuous molding from raw polystyrene beads with the addition of a new expander, the supplier notes. It is also reported to be adaptable to high-speed, in-line processes and to be prac-



"When other costs went up—we offset them by bringing packaging costs down. We did it with ViaQueen film"

J. E. Asmuth, General Manager Wisconsin Tissue Mills, Menasha, Wisconsin

"We hadn't been getting the savings you're *supposed* to get from automatic machinery. The downtime was too much. 'Milprint'—that's our supplier—said we should use VISQUEEN film.

"We did—and we've never seen anything like it. Breakage is almost nil now—and so's downtime. We get *performance*.

"Visqueen film is uniform—that's the reason. No thin, weak spots. It's wound smooth, too. Wrinklefree. And it's flat. Just all around more machinable.

"We cut our packaging costs enough to offset the rise in other, non-packaging costs. That meant we could keep the price of our 'Twin Pack' garden napkins competitive—and avoid a profits squeeze we would have had otherwise.

"Our sales people say retailers are happier now, too. The film is clearer. It sparkles. Has a 'rich' feel to it. And because the packages are stronger, we have no more breakage trouble."

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Equipment & Materials [Continued]

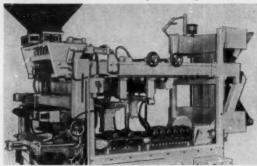
tical for product manufacturers who wish to develop an in-plant packaging operation integrated with production. Moldings of 20 in, or better in depth are possible. Champlain-Zapata Plastics Machinery, Caldwell, N. J.

New film wrapper and bag fabricator

New from Doughboy are a film-wrapping unit and a filmbag-fabricating system, both of which can be seen at the Machinery Show. Called Modern Unipax, the semi-automatic film wrapper seals two or three sides as needed and can run a variety of films, including polyethylene and newer shrinkable materials. It can accommodate items ranging in size up to 16 in. long by 16 in. wide. The machine is equipped wth two clamping bars which hold the bottom of the film during the loading process, making it possible to handle heavy objects without weakening the bottom seal, says the supplier. A snugging device permits hot-knife sealing close to package contents, for savings in film. The machine has a rated speed of up to 40 cycles per minute. The firm's automatic bag-fabricating system accommodates film gauges from 2 mils up. Film bags up to 40 in, wide and 70 in. long can be produced from a single roll-stock tubular web at speeds of up to 40 per minute, the company says. Two or more narrow webs can be run for production of smaller bags. The machine is designed especially for the production of case and drum liners and heavy-duty bags. Doughboy Industries, New Richmond, Wis.

Versatile flexible-packaging unit

A new flexible-packaging unit, developed by J. M. Nash Co., will be introduced at the Machinery Show. The machine, known as the Nash-Pak 500, is designed to pouchpackage solids, liquids and powders on the same unit. It is available with either heat- or impulse-sealing bars and re-



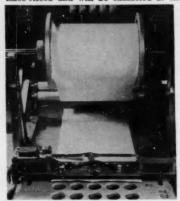
portedly can be easily converted from one to the other. This allows for greater variety in the types of film that can be used, the supplier notes. The unit is capable of producing packages up to 8 in, long and 14 in. wide. Package sizes are said to be easily changeable. Reportedly, liquids and powders can be accommodated simultaneusly on the unit. Its operation is a combination of continuous and intermittent motion. Film-roll unwind is continuous to eliminate the effects of film variations or stickiness on the machine's operation. Intermittent motion at the fill-point allows the filling tubes to move down into the pouch for filling. This cuts product drop to around 4 to 6 in. and helps eliminate the dust problem, says J. M. Nash Co., Oshkosh, Wis.

Automatic pressure-sensitive labeler

The Allen Hollander Co. is introducing at the Machinery Show a new automatic dispenser for pressure-sensitive labels. The unit is said to be capable of accurately applying labels on envelopes, cards, forms and like items at the rate of 60 per minute. The dispenser peels the label from its backing sheet and applies it to any unit in a single operation. It will accept labels from either roll or fan-fold packages. Additional information is available from The Allen Hollander Co., 385 Gerard Ave., New York 51.

Unit container packaging machine

A new machine for filling and hermetically sealing preformed, single-portion foil containers is being offered by Ekco-Alcoa and will be exhibited at the Machinery Show



this month. The automatic designated UCS-30, will operate at speeds of up to 240 containers per minute, the supplier says. designed for packaging jelly, syrup, honey, dessert toppings and other homogeneous products in containers sized from (in 1/4-oz. increments). Sealing materials

with the machine are plain or laminated aluminum foil, coated with heat sealants and usually printed or decorated. A pull tab facilitates removal of the cover. Operation of the unit is said to be completely automatic. Five feed magazines deposit containers on a continuous conveyor which passes under the filling unit. The filler dispenses measured portions into the five containers simultaneously. The filled containers then pass through the sealing unit (illustrated) which covers and seals the containers with a single thin sheet of foil. Before being discharged from the conveyor, the containers are cut into groups of 20. At a separated station the groups are cut into single containers and deposited into a pulpboard tray. For details, contact Elko-Alcoa Containers Inc., Wheeling, Ill.

New line of equipment

Two of Crompton & Knowles' divisions will be exhibiting new machines at the Machinery Show. The company's Wrap-King Div. is showing a cartoner and a mechanical case opener. The cartoner, Model 19A Standard Automax, is said to be especially designed to fill the need for a lowcost, efficient, single cartoning unit. It requires only one operator and is reportedly capable of speeds up to 50 per minute. The cartoner, which measures 31 by 70 in., does the entire job automatically-from the feeding and forming of the carton to the tucking-in of the flap and discharging of the finished package. The unit will also handle reverse tuck-end cartons. The size range is 2 to 7 in. in length; 11/4 to 4 in. in width, and ¾ to 21/2 in. in depth. The mechanical case opener, also from Wrap-King, is said to be a highspeed machine especially designed for receiving knockeddown corrugated shipping cases, opening them and turning the formed cases through 90 deg. with bottom flaps closed and top flaps open and under control, and then discharging them in upright position. The machine can be used for manual or automatic vertical filling and is rated at speeds of up to 40 cases per minute.

Crompton & Knowles' Redington Div. will be showing a new roll-wrapping machine and a leaflet-feeding-and-folding attachment. The roll-wrapping machine, for mint-type tablet packaging, feeds the tablets from a hopper, accumulates them face-to-face in bundles of 12, feeds paper backed foil from a web, cuts to length and then wraps the roll. The unit is designated Model 47B3 and reportedly operates at speeds in excess of 140 packages per minute. The leaflet attachment is designed to receive leaflets in flat form. Crompton & Knowles Packaging Corp., Holyoke, Mass.

New flexible-packaging machine

A new flexible-packaging machine, manufactured by Potdevin, will be introduced at the Machinery Show this month. The unit is said to be designed for completely [Continued on page 192]

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He has a quick, accurate answer to any question on corrugated packaging, from the design to the delivery of your product.

He makes it his business to understand every phase of packaging operations—box-making, printing, filling, closure, handling, shipping . . . the works. This way he makes sure your Gaylord containers perform most effectively and economically

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to prevent hidden pilferage . . . assures top impact strength!

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WHY YOU SHOULD CONSIDER

CECO **BEFORE YOU BUY ANY** CARTONING MACHINE

In the confusion of claims that every manufacturer makes for his equipment it is important to distinguish those features which are important to distinguish those features which are important to you. Some machines, for example, stress their high speed. Unfortunately, high speed and flexibility do not go together, and what you gain in speed you lose in flexibility. Consider for example, the CECO machines, where the major emphasis is placed on flexibility. The Model 45 as a typical, fully automatic machine provides cartoning speeds of up to 140 units per minute, yet provides a fast, convenient changeover that permits you to change from one carton size or shape to another in less than 25 minutes.

or snape to another in less than 25 minutes.

Another very important feature to look for in any cartoning machine is maintenance. Is the machine easy to maintain, or does it require a staff of engineers to keep it running smoothly? For example, consider this about CECO machines: by using sound engineering principles we have developed a line of machines that are extremely simple and inexpensive to operate. Be sure to take into consideration too, the reliability and experience of the machine manufacturer. Some companies, like CECO have been manufacturing cartoning machines for twenty-five years. All the "bugs" have been engineered out

twenty-five years. All the "bugs" have been engineered out you buy a proven machine with a record of dependability. And, you are assured of a continuity of service and parts.

How about auxiliary equipment? By consulting a CECO sales

engineer you can draw upon his broad experience in your industry. He can show you how CECO machines can be custom-

industry. He can show you how CECO machines can be customized—with printers, coders, labelers, and special conveyor systems—to the exact job you require.

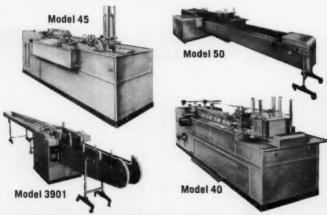
Today, in the face of fast-changing consumer package preferences, a CECO machine is added insurance that you can meet those changes with ease. Only CECO machines provide the fastest changeover possible from one size or shape carton to enother without special tools.

to another, without special tools.
CECO machines are available to handle all types of cartons, from light paper board to heavy corrugated or heavy fiber board. They can be used for gluing or tucking carton flaps, and now, all models are available to handle edge-lock or center-

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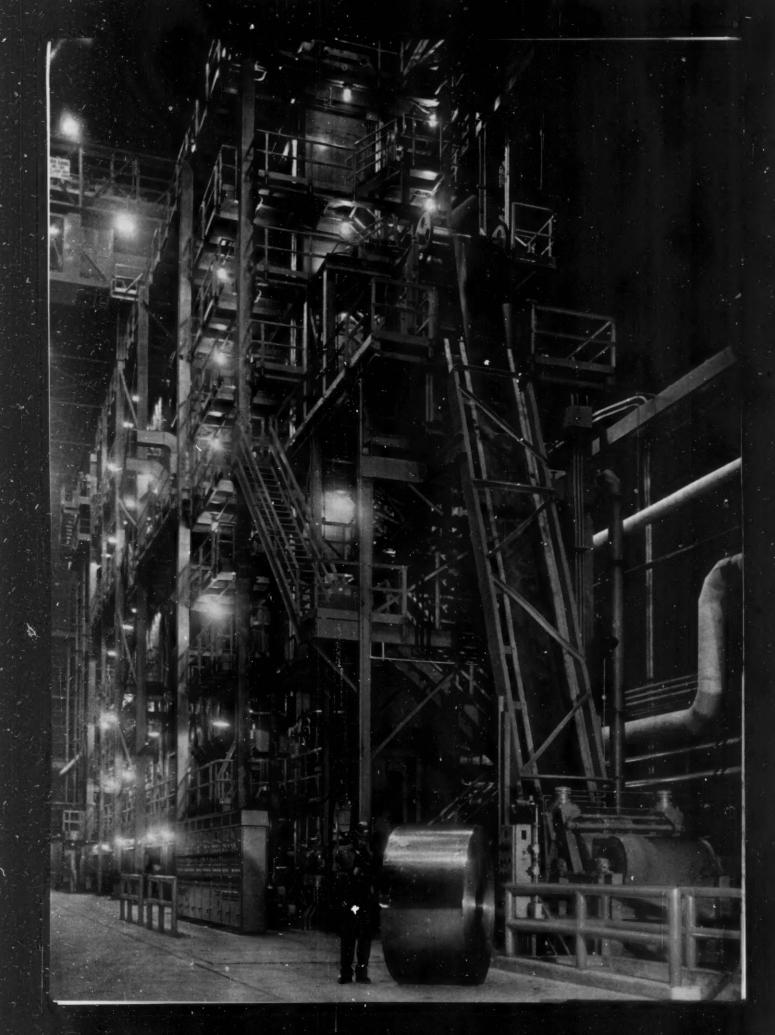
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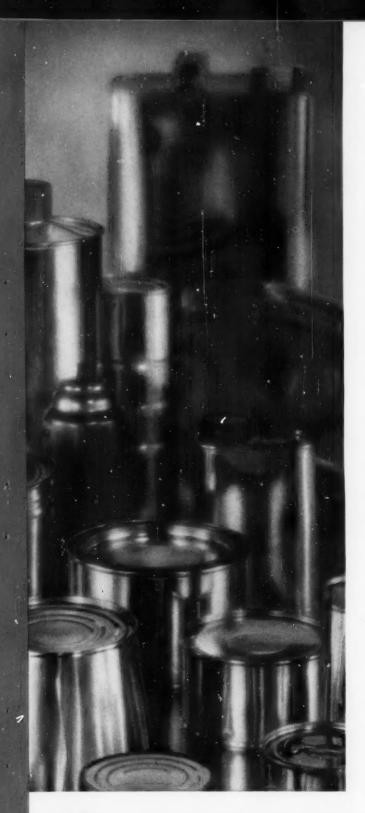
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New additions to Youngstown's No. 2 Tin Mill at Indiana Harbor include:

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 Continuous Annealing Line, shown here, has maximum speed of 2000 FPM, producing 60 gleaming tons per hour.
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The Youngstown Sheet and Tube Company, Youngstown, Ohio

Transwrap S-750 produces over 50 two-pound bags a minute for Seabrook Farms

To package the well-known Snow Crop and Deerfield lines of quick frozen peas, beans, corn and mixed vegetable combinations, Seabrook Farms is using the new Package Transwrap S-750. This machine automatically forms, fills and seals at the sustained production rate of 50 bags a minute, using 2½-mil printed, registered polyethylene from roll stock. This more than doubles previous output with other filling and sealing methods.

The Transwrap S-750 offers you these costcutting features that mean speed, flexibility and efficiency in any packing plant:

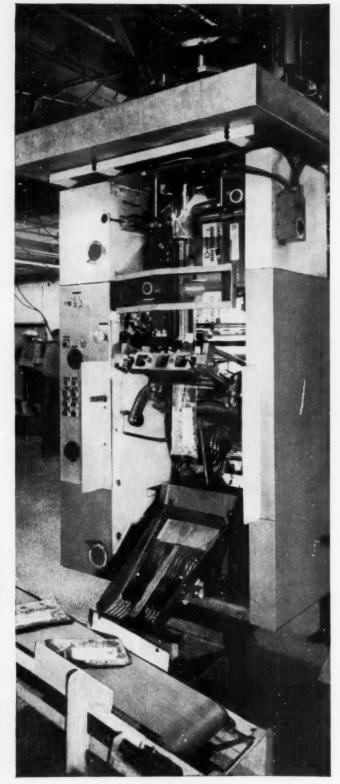
- \bullet Size range from $3^{\prime\prime}$ to $15^{\prime\prime}$ long, $2^{\prime\prime}$ to $81\!\!\!\!/_2^{\prime\prime}$ wide.
- Up to sixty 1½-mil poly bags a minute with a single tube, easy speed adjustment.
- Smooth, straight pull on material, even at high speeds, by spring-counterbalanced, crank-operated drawbar.
- Improved paper feed operates faster, eliminates film distortion.
- Tight, positive impulse sealing of ends and longitudinal seal.
- · Rapid film and size change-overs.
- Handles a wide variety of plastic and heat-scalable films.

See the \$-750 Transwrap—with net weight scales—and floor level conveyors—operating at the PMMI Show in Detroit, Package Machinery's Booths 526-528.



At Bridgeton, N. J., Seabrook Farms is pouch packaging frozen vegetables in polyethylene for its 1½-lb. Snow Crop and 2-lb. Deerfield labels on this Transwrap S-750. A second machine is scheduled to go into operation in the near future.





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PROBLEM: How to wrap a package so it will take rough handling.

SOLUTION: International Paper's Gator-Hide_® Extensible Kraft has a built-in <u>stretch</u> that withstands sudden shocks.

THESE PACKAGES are wrapped with International Paper's rugged Gator-Hide Extensible Kraft. You can drop them, throw them, bounce them. This wrap can take it!

Gator-Hide Extensible Kraft actually stretches to absorb sudden shocks without ripping. This makes it the ideal wrap for any product that must withstand rough handling. Magazine publishers, for example, have found that Gator-Hide Extensible Kraft sharply reduces their post office rejection rate.

International Paper pioneered the introduction of white, black and golden brown extensible kraft. Now, there are many special colors available. And Gator-Hide Extensible Kraft is supplied in either sheet or roll form, with such features as electric eye cut-off markings.

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this process. Using modern 3-color flexographic presses, they'll brilliantly print your sales message. Give you wrappers that *promote* as they protect.

In paper and paperboard, International Paper's sales and technical staff provides you with packaging that's designed from the beginning to suit your product and solve your problems.

Call any of our seventeen Southern Kraft offices. Or contact your paper merchant—he's probably been doing business with us for years.

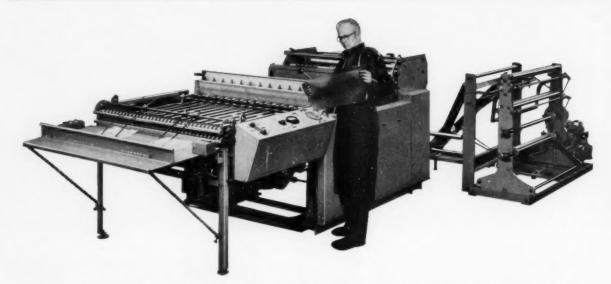


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Sounding BOARD

WE ASK THE READERS

What is the greatest unsolved problem in packaging?



Robert D. Glidden
Vice President—Director
Cel-Fibe Div.
Personal Products Corp.
Milltown, N. J.

The problem is how to raise packaging standards to increase the pitifully small proportion of current packaging that is satisfactory both functionally and from a marketing standpoint. It may be a startling idea that the general level of packaging is low, when attention is constantly being drawn to the spectacular advances in package design and the uses of packaging materials. Yet these advances are few and far between in ratio to the volume of packages marketed.

While virtually everyone who manufactures any kind of product is in the packaging business, only a few companies possess real knowledge and skill in packaging for sales appeal as well as for protection and convenience. This is why slavish imitation occurs when a new and better package is introduced.

There is woefully little packaging research, certainly a negligible amount in comparison with product development and market research. Too few companies employ genuinely qualified packaging engineers and often those that do so fail to give these men adequate status, thus the recommendations of a packaging engineer are frequently overridden by a purchasing department on the dictates of false economy. There is too little reliance on the help available to packagers from package designers and materials suppliers.

The present situation can be self-perpetuating unless more is done to solve the problem now and to train packaging specialists for the future. Perhaps one answer is to encourage grants to institutions of learning to install more and better packaging courses. Then there should be greater emphasis on packaging research, more dignity and responsibility for the packaging engineer, closer collaboration with the professional package designer and the materials supplier—and, above all, greater awareness by management of what packaging is and what it can and should do.

John Robbins, Director of Packaging, Fairview Packing Co., Inc., Hollister, Calif.: Where canneries are concerned, the big problem is: Which way should the

food processor turn? We know there will be changes and that we must meet them.

The trouble with the canning industry is that it's the same today, mostly, as it was in 1900. It's just now coming into the Twentieth Century. We're using a three-part package: can, label and shipping case. We've changed from wooden cases to paperboard and that's about all. Between the cans and the shipping case, a lot of space is wasted. While they're making the cans lighter, there's still a lot of weight.

Fifteen years from now, perhaps as little as 10 years from now, we may not be merchandising in cans. Perhaps the new container will be a cardboard carton with a polyethylene liner. This will save a lot of space—important in warehousing and in shipping space—and a lot of weight—important as freight rates go up.

But which way should we direct our changes? That's the problem now facing the packaging industry.



George R. Ryan Director of Packaging Abbott Laboratories North Chicago

Every packaging engineer has many major problems that vary from industry to industry and from company to company. But all have one in common—cost.

Competition and efforts to increase a product's share of the market result in requests to develop new packages incorporating plus values of package convenience and appeal without increasing cost. It is relatively easy to upgrade a package when cost is not a factor, but to make major improvements without increasing cost challenges the most creative engineer.

To accomplish this objective it is essential to spend far more time in analysis than was formerly required. The first and by far the most important step is for the engineer personally to spend time with a number of consumers so that he can determine their needs, desires, likes and dislikes.

All too often mistakes are made and valuable time lost when the redesign is based on the engineer's interpretation of incomplete reports from the field. Later in the project's development, new and more expensive packaging materials should not be over-

Sounding Board [Continued]

looked, but should be carefully and thoroughly evaluated in terms of their potential effects on product safety, stability, production, warehousing, shipping, loss, returned goods and many other factors which influence the total package cost. Savings in these particular areas frequently can result in offsetting the increased cost of the packaging materials.

The packaging engineer can never eliminate cost as a major problem, but he can, through analysis and through problem definition, very often control it.



William M. Renninger President Dynamic Trends, Inc. Los Angeles

The greatest unsolved problem in packaging, in my opinion, is the selection of the best package for a particular application. It should be pointed out that the best package (considering the myriad of factors involved) is the best at only one moment in time, due to trends in consumer preference, technological developments and competitive action.

The organized efforts of packaging engineers and designers, graphic artists, industrial designers, suppliers, advertising and market-research specialists must finally be resolved by the executive decision: "This is the best package."

The correct and successful decision requires the exercise of that rare quality—judgment—plus perhaps an added spark of imagination or creativeness which will insure that it is the best. Thus the greatest problem in packaging is solved—for the moment.

But even as the decision is being implemented, forces are at work which will relegate this "best" package to second rate and eventual oblivion.

This greatest problem in packaging will never be solved with finality, but must always be solved and resolved; therein lies the great challenge of packaging and the basis for its dynamic character and growth.



H. G. VonrheinPackaging EngineerAerojet-General Corp.Azusa, Calif.

In the industrial-packaging field, the greatest unsolved problem facing the industry is the lack of adequate factual data pertaining to shock and vibration to containers during handling, shipping and storage.

Existing Government and federal specifications in regard to rough-handling testing do not duplicate the actual environmental conditions, which certainly vary considerably with different modes of transportation employed and the type of handling experienced.

These conditions, therefore, leave the packaging engineer with only one choice: to design his package to withstand the most adverse conditions known, based on assumed, rather conservative, fragility values which are given to him by the design engineer of the item to be protected by the container.

In addition, military contracts are, particularly in the R&D efforts, too general as to types of packaging required. In most cases, the logistic pattern is not defined, leaving the contractor with a contractual clause regarding packaging to the effect that "items are to be adequately packaged to assure safe arrival at their ultimate destination."

Most packaging engineers in industry have been able to develop a "crystal-ball-type sense" to take all of the unknown factors into consideration. Considerable time, effort and cost savings, nevertheless, could be realized if the person on the other end of a contract would be more specific as to the packaging requirements and anticipated hazards regarding shock and vibration during handling, shipment and storage, all of which should be based on factual data.



Curt Kornblau Director of Research Super Market Institute, Inc. Chicago

From the supermarket-operator's point of view, the greatest unsolved problem in packaging is the too-frequent neglect by the packaging industry of the stern demands of modern food retailing.

The supermarket business is a continuous round of materials handling. The typical supermarket of today carries more than 6,000 items and turnover is fast. Great numbers of cartons and packages are handled in the supermarket in quick succession.

As store operating expenses continue to mount, it becomes increasingly imperative that labor and handling costs as well as space requirements be held to a minimum. The retailer will more than welcome any assistance that he can get from the manufacturer of the containers, as well as from his package designers.



Charles W. Lincoln Chief Packaging Engineer Bell & Howell Co. Chicago

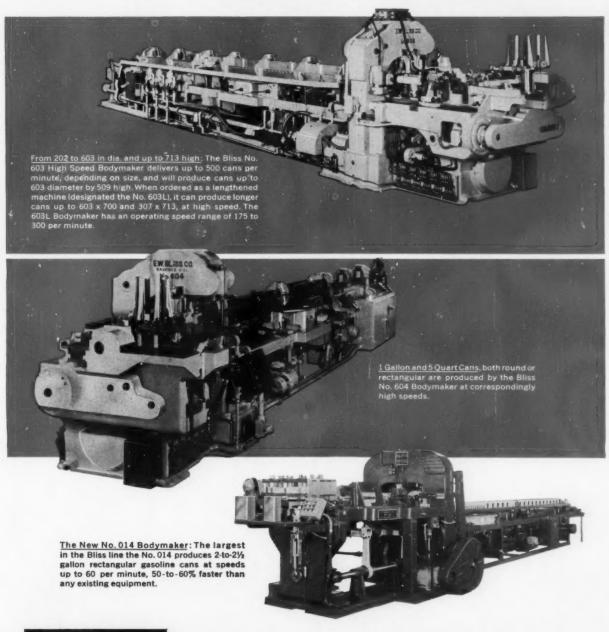
The prime problem needing attention is a clearer answer to the question, "What is a package?"

While this will vary from company to company, I think that certain basic factors as to the correct functions of a package must be better understood among manufacturing, packaging, retailers and the ultimate consumer. We know that it must be economical, provide protection, aid in merchandising, both artistically and through ease of ware- [Continued on page 238]

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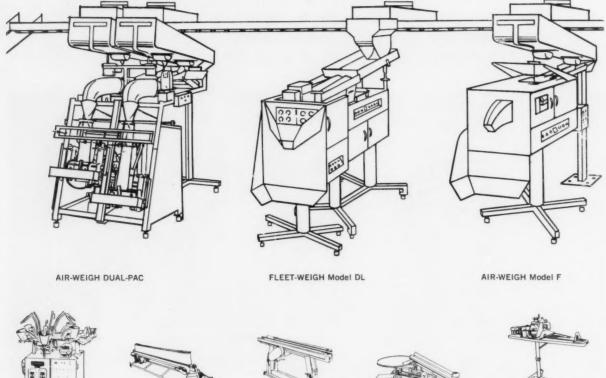


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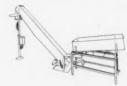
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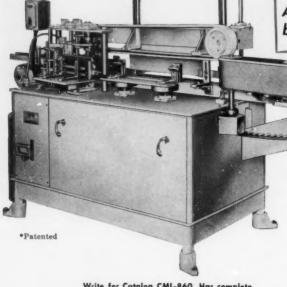
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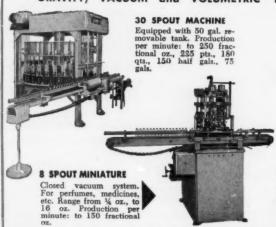
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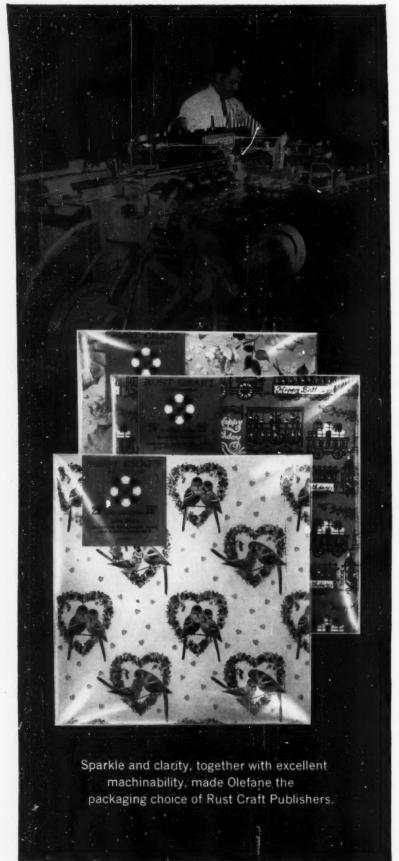
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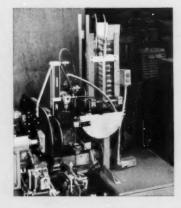
How might a decorative, moisture-resistant tape closure help you design greater protection . . . greater eye appeal into your packages? For information about methods and equipment, call your 3M Tape Representative, or write: 3M Co., 900 Bush Ave., St. Paul 6, Minn., Dept. IBG-91.

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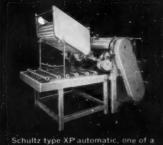
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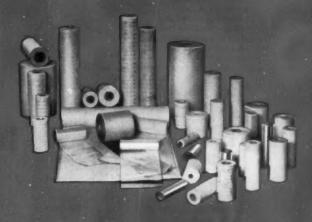
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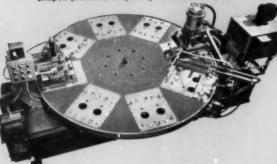
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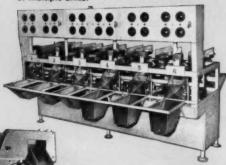
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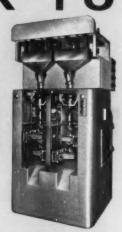
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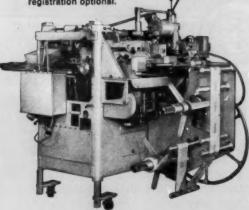
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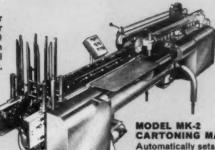
MODEL SMW-10

Makes, wraps and seals up to 120 ice cream sandwiches per minute. Continuous freezer extrudes ice cream, wafer is added from each side, positioned, by indexing wheels. Sandwich is tightwrapped and heat-sealed in a neat, sanitary package for delivery to hardening room. Economy, high perfermance.

MORPAC MODEL TF-KEF-V

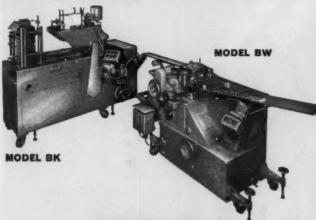
Combination print former, wrapper and cartoner designed to package quarter-pound prints of butter and margarine at speeds approximating 2500 pounds per hour. Efficient and dependable with accurate weight control. A new improved model has been developed and will be available this year.





MODEL MK-2 CARTONING MACHINE

Automatically sets up straight line glued carton blank to receive product, closes and seals ends, producing a rigid, tam-perproof package. Capacity up to 50 cartons per minute with opening and reclosing features optional.



MORPAC MODEL BK

Collator and cartoner accumulates in various multiples, places in economical wrap-around blank and seals carton. Handles candy bars, hardened ice cream bars and slices, soap tablets and other small items at speeds up to 40 cartons per minute, Load-ing from one or both sides, one to four layers. One Model BK handles production of two Models BW, when integrated.

MORPAC MODEL BW

Wraps and seals candy bars, ice cream bars and other uniform, rectangular products at speeds up to 150 per minute. Electric eye wrapper registration, harmonic motion product feeder and elevator, side loading twin arbor brackets, torque-limiter, auto-matic product flow switch for integrated infeed conveyor operation.

425 BOO

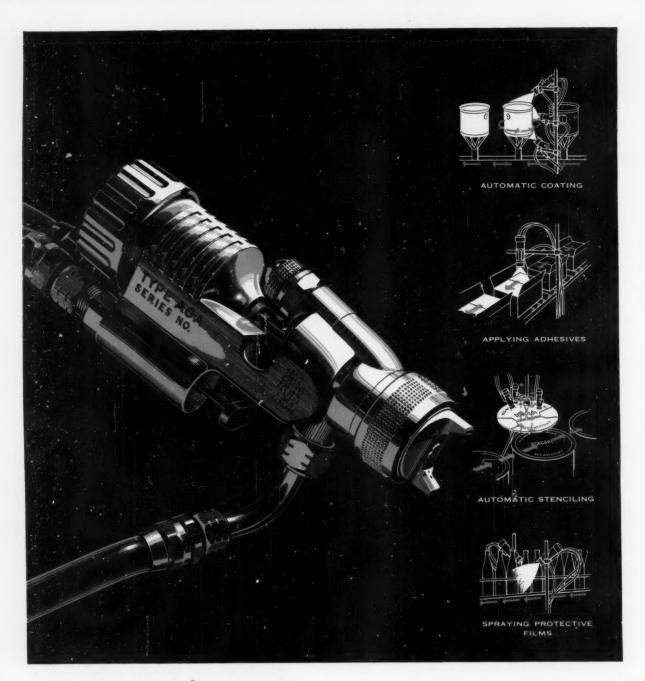
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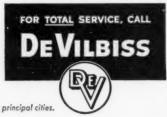
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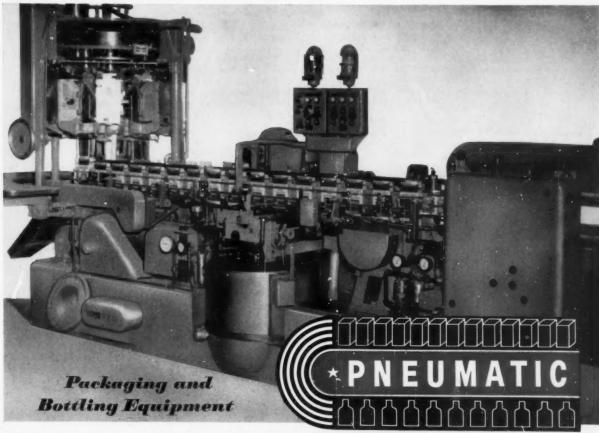
THEY PUT IT IN A PACKAGE AND CALLED IT MUELLER'S MACARONI

That was fifty-seven years ago. Mueller's has been a leader ever since. And one good reason for the prominence of Mueller's Macaroni brand has been the skill and efficiency that has always characterized Mueller's methods of protecting its product with a well designed package.

In 1949 Mueller introduced its windowed cartons and installed Pneumatic coordinated equipment to form, fill and seal its packages — automatically.

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If you are interested in the latest automatic packaging or bottling techniques, Pneumatic can offer you more—in equipment, experience and service—than any other company you could consult.



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Digest of foreign packaging developments*

ENGLAND

Milk bottles versus cartons

The economics of glass versus throw-away paper containers is a question before the Society of Dairy Technology in the U.K. Cartons apparently in Britain have proved themselves appropriate packages for vending machines and for retailing through shops where the return of bottles cannot be assured. Self-service stores are grateful for not having to cope with empties. The high percentage of doorstep deliveries, 79% of liquid-milk deliveries, however, presents a good case for the economy of the returnable bottle, plus consumer preference for the transparent package. The Society of Dairy Technology is also giving consideration to new plastic bottles, polyethylene bags, lightweight disposable glass bottles, as well as to amber glass bottles that serve to screen out ultra-violet light.

Reclosable blister pack

By affixing a flip-style blister to a card, the packaging division of Gordon & Gotch, Ltd., London, has developed a blister pack for throat lozenges that is reclosable after initial opening. The package is opened by removing two notches in the card on either side of the blister, releasing the flip-top lid so that it may be bent back and forth to dispense a single lozenge, then be reclosed. The construction is suggested for small confectionery and food items when non-toxic plastics are used. It also has been pointed out as having possibilities for small hardware items—hooks, nails, etc. The cards are punched for rack hanging.

AUSTRALIA

All-girl packaging department

A meat-packing firm with factories in four of Australia's largest cities has an unusual distinction. Its packaging staff of 40 is comprised entirely of women, headed by a woman manager. Her responsibilities include the design of the company's packs; selection, purchasing and testing of all packaging materials used by the company's various products, and departmental administration of the packaging staff for this firm which packs bacon, ham, sausages, frankfurters, black-and-white puddings and luncheon meats.

New course in packaging engineering

The National Packaging Institute of Australia is establishing educational courses at the Royal Melbourne Institute of Technology in packaging engineering. The courses, it is anounced, will be based on those of the UK Institute of Packaging and are expected to begin with the first term of 1962.

SCOTLAND

Self-service automatic warehousing

An "automatic" cash-and-carry warehouse has been set up by Jack Hilley, Ltd., Glasgow, for buyers of groceries, confectionery, chemists' sundries and small wares. Four parallel 40-ft. rows are served by three conveyor lines. Customers are given a code number and a marking pencil with which to mark the items they want and transfer them to the conveyors. These take them to a check point where floormen assemble the order by code number and transfer them, also by conveyor, to the proper wall hatch while the purchaser positions his car or truck to receive them as they emerge from the hatch. The system is winning enthusiastic acceptance, the company says, but calls for more multipacks in film for customers who want less than case lots.

PORTUGAL

Multiwall bag makers meet in Lisbon

At the 11th Congress of Eurosac (European Multiwall Bag Manufacturers), it was reported that 94 firms in 15 European countries, in their 125 factories, treat annually more than 1-million tons of kraft paper to manufacture 4-billion multiwall bags. The subjects discussed at the Lisbon meeting covered standardization of dimensions for palletizing, test results of filling hot products into bags of heat-resistant papers, prolonged storage of fertilizers in paper bags.

CANADA

Automatic vending potentials

Although automatic vending has moved at a slower rate than in the U.S., the vending-machine industry estimates that vending sales in Canada are jumping ahead better than 10% yearly—five times the general retail sales growth—offering an interesting future packaging potential. Several factors contribute to this growth: need for efficient in-plant feeding, after-hours sales of food staples, coin-operated laundromats, as well as the automatic canteens that are operated in schools and other institutions.

ENGLAND

Preference for motor oil in cans

A survey by The British Market Research Bureau of 309 filling stations handling Regent motor oil revealed that 62% of the dealers questioned thought the can the better way to sell oil; 21% preferred the bottle; 14% thought there was no difference, and the remaining 3% thought other ways of selling were preferable. The prediction is that the pint or quart sealed can may soon become the main packaging system in the United Kingdom, as in the United States and other parts of the world.

Reclosable pourers on siftproof cartons

A British firm, Robinson & Sons, Ltd., is making a study of forming dispensing devices from the normal substance of conventional carton construction leading to several different types of pourer cartons. One is a semi-perforated triangular pull-out spout, half of which is formed from the board of the side wall and the other half from a small unglued portion of the manufacturer's long seam. Other studies being made include a much larger pouring aperture, not intended for reclosure, which is formed by perfoating the outer and the inner walls and covering the perforation with a Van Buren ear; a top-opening tear-back strip accomplished by herringbone side slits; two slide-open dispensers that are reclosable, adapted from a German development.

*For additional information, write: World Report Editor, Modern Packaging, 770 Lexington Ave., New York 21.

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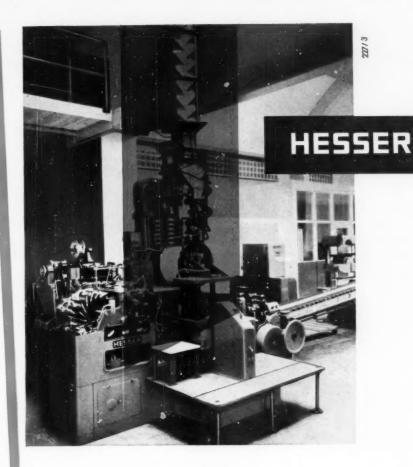
throwing away an excellent chance to squander funds on expensive production involving heat, water or solvents.

If, on the other hand, you have a tendency toward FAR-sightedness and need *any* kind of label—removable or permanent—you'll get along fine with Avery... the most respected name in pressure-sensitive products. Write for FREE SAMPLES of Avery K-6 labels to: Avery Label Company, 1616 S. California Avenue, Monrovia, California.

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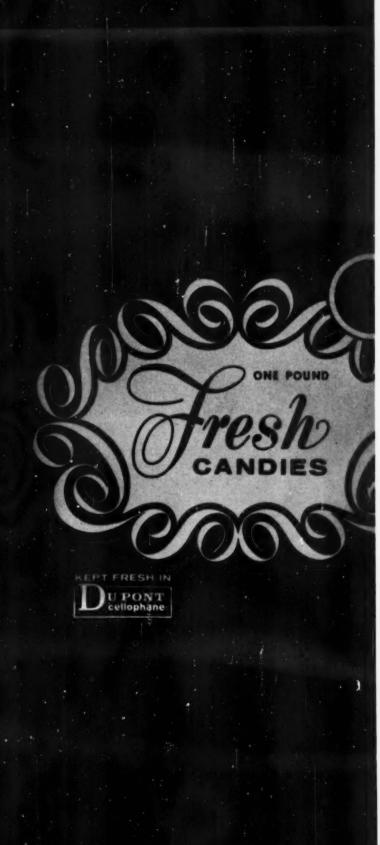
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MODERN PACKAGING

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EDITORIAL MEMO

The customer is usually right

Those who subscribe to the hidden-persuaders school of thought would do well to listen to Dr. George Katona of the University of Michigan.

Consumers, says this eminent consumer psychologist, aren't puppets. They may lack a sophisticated knowledge of business trends and influences, but their common sense operates to help keep the economy on an even keel most of the time. And changes in their attitudes often provide the first clew to a buying surge or a decline.

It almost comes down to a question of who is persuading whom. Dr. Katona, who conducts quarterly surveys of consumer buying attitudes through the University of Michigan Survey Research Center, is convinced that the consumer influences business behavior to a far greater extent than business influences the consumer.

And if packagers would pay heed to Dr. Katona, most of the motivation researchers would be out of business. "The ability of consumer psychology to reveal hidden motives and to determine means of influencing masses of people," he told the American Psychological Society recently, "is quite limited." This should be interesting news to the good Senators in Washington who, egged on by consumer agitators, seem to have adopted the idea that packaging is a psychological snare and delusion, designed to trap, cheat and bewilder the poor consumer.

Dr. Katona won't buy that. Don't pity the consumer, he says; she's a pretty smart gal—one who generally knows what she's doing. And, in fact, Dr. Katona gives the consumer much of the credit for the relatively stable economic growth that we have had in the postwar period. In good times, he says, consumers keep watching for occasional bad news; they resent rising prices and react by postponing some of their discretionary purchases. In bad times, they listen for better developments and are quick to react to them. But they make up their own minds, Dr. Katona believes; they can't be persuaded by hidden or other means.

On at least three occasions in recent years, the university's studies of consumer attitudes have been credited with pinpointing key turning points in the economy well ahead of traditional indicators.

Much of the suspicion that has recently been attached to packagers' motives stems, we think, from the tarnished image of the hidden persuaders. It's time for the packaging industry to get back to the truth and Dr. Katona has thrown some significant and revealing light in that direction.

The Editors

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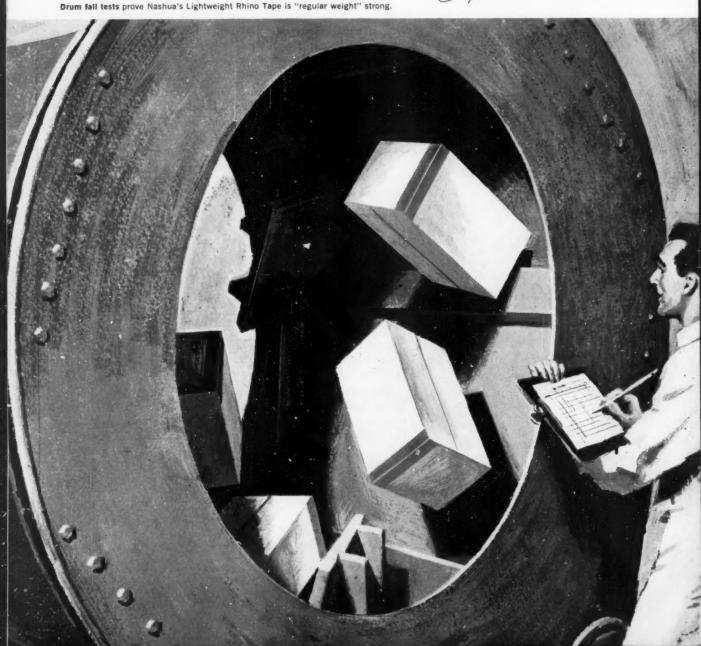
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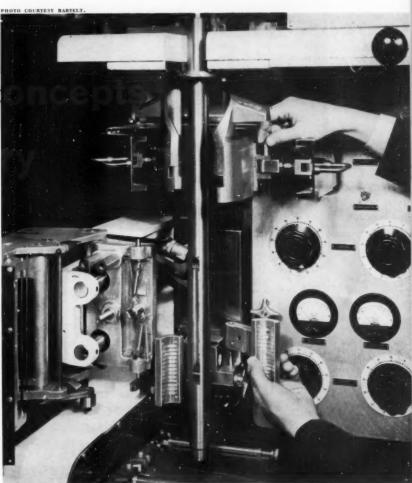
MODERN NOVEMBER 1961 Vol. 35 No. 3

PACKAGING

THE COMPLETE AUTHORITY OF PACKAGING

Changing c in machine

The mechanical sophistication
of the space age
is influencing
the designers of equipment
as packagers demand
the utmost in automation
combined with
versatility and speed



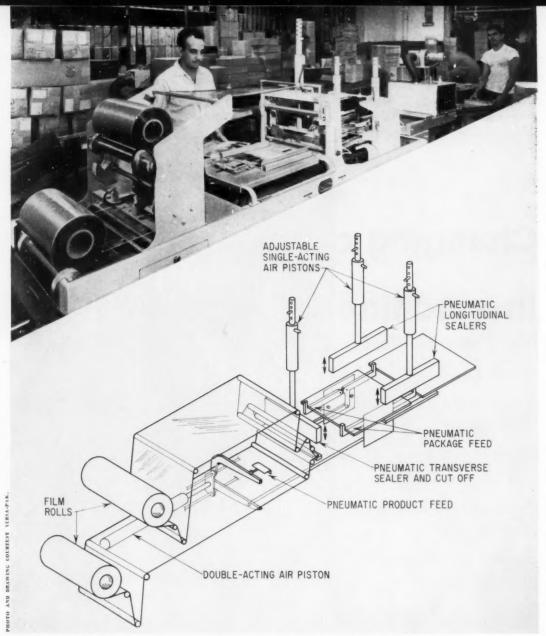
Typical of new principles coming into use is this vacuum sleeve on a vertical pouch packer that pulls tube of thermoplastic film smoothly through the forming and sealing operations.

he connection between a missile launching pad at Cape Canaveral, Fla., and a frozen-pea packaging line in Walla Walla, Wash., may seem nebulous. But it is increasingly apparent that space-age developments symbolized by our rocket shots are having a significant effect both on the physical hardware and on the engineering attitudes involved in packaging machinery and equipment.

Machinery men are aware that packagers steeped in the advanced technology of this age have become sharply attuned to the possibilities of automation and they are also realizing that mechanization today encompasses a great deal more than just the speed achieved by a packaging operation.

An increasing number of packaging production men are insisting on machinery capable of multiplied functions and more efficient performance. They want external machine design that combines both beauty and practicality. And these demands have been further accelerated by the recent advent of new packaging materials and new types of containers—particularly those made from plastics—which necessitate a fresh engineering approach to specialized packaging operations.

The list of special or added functions that packagers now want on basic packaging machinery



Pneumatic action is gaining. All-pneumatic motion is feature of a new wrapper designed for the increasingly popular shrinkable films. One main cylinder (drawing) propels the product through the machine, while three other adjustable-stroke air pistons operate transverse and longitudinal heat sealers.

would fill a book. It ranges from imprinters, leaflet inserters and integral labelers to high-speed check-weighers, counters and elaborate electronic controls and interlocks. Without careful engineering, however, such complex packaging machines could become modern equivalents of the Juggernaut and would just as surely crush today's beleaguered packaging maintenance personnel.

Many of the results of these new influences on machine design will be seen at the biennial Packaging Machinery Show, opening at Detroit's Cobo Hall on November 7. The observations that follow are the result of several months of research undertaken by Modern Packaging's editors.

The new directions

These are the directions that packaging machines are taking today:

To meet the demands for multiple functions, many machinery suppliers have halted previous attempts to standardize design of their equipment and have swung further than ever to customized machines for specific applications. In this trend, manufacturers of basic machines are being joined by new engineering firms that make a specialty of "one-shot" equipment designed to handle packaging problems that are particularly knotty.

And to prevent the complexity of modern machinery from strangling both output and maintenance, mechanical and electrical engineers in machinery manufacturing are persistently searching for new materials of construction, improved mechanical and electrical components and even radical new techniques that reduce the bulk and confusion of components in high-speed, multi-function equipment.

Many of these improvements in hardware have their genesis in military developments: miniaturized electrical and electronic systems, plug-in parts, rugged mechanical and pneumatic components, ultrasonics. All were first devised for the foolproof service required of space-age military systems. But, where these developments leave off, supplier engineers are using their own ingenuity to create new devices that, in general, can be categorized by their application to: (1) motion, (2) control and (3) specialized packaging functions, such as heat seal-

ing, forming, package and materials handling, as well as product identification.

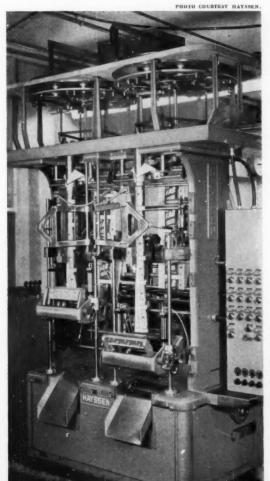
Armed with these improvements, machinery builders are creating new packaging machines of exceptional precision and efficiency that are also capable of greatly advanced speeds—which, when all is said and done, is still regarded by many packagers as the final criterion for a new machine.

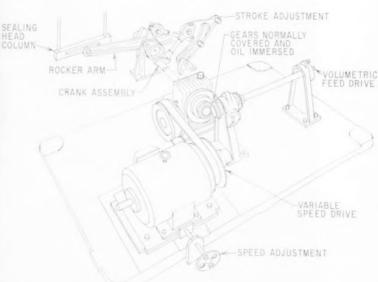
Growth of continuous motion

To achieve the desired levels of speed and performance, machinery men are switching increasingly to rotary or orbital motions,

Rotary action is the choice where time is needed to accomplish a packaging operation and the overall machine must be kept within strict dimensional limits. Prime example is a series of special machines (PMC Industries), all built on the same basic turntable, that incorporate various feed and chuck actions and have been used recently for a wide number of complex package assembly and capping operations previously requiring the use of several machines and many times the floor space.

Orbital actions, on the other hand, are now com-





Simplified drive for a new high-speed vertical pouch packer substitutes a foolproof crank (drawing) for conventional cumbersome rack-and-pinion mechanism. Heat-seal bars (lower center in illustration) have been equipped with pneumatic and hydraulic pistons to speed opening and closing, yet reduce shock. Machine can turn out more than 200 pouches per minute.

ing into vogue to combine the advantages of continuous rotary motion with the excellent package control and long contact time of straight-line mechanisms. Used previously in high-speed tube-filling and sealing equipment, this principle is newly important in the forming and sealing of modern thermoplastic films. A significant instance of this motion is found in a new 300- to 500-per-minute horizontal form-fill-seal machine (Bartelt) that more than triples the production output of units that were previously used for pouch packaging.

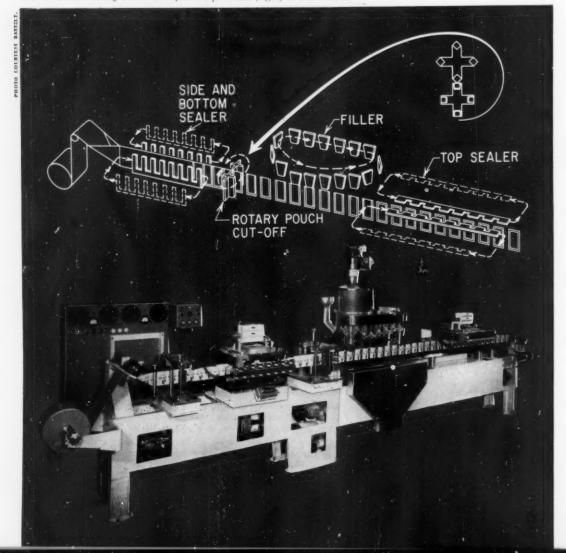
In this continuous-motion packager, the orbital action is used for both filling and heat-sealing mechanisms (instead of for the container, as in the tube filler). Here, up to eight vertical heat-sealing

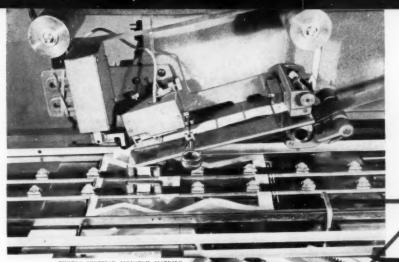
irons are mounted on a single bar that moves in an oval path to obtain the even pressure, constant heat and accurate dwell time needed to seal the heatsealable flexible materials used for pouch packages which travel in a straight line at high speed.

Dustless filling of the packages is accomplished on this unit by activating duck-bill filling pockets in both a horizontal and a vertical direction, using orbital motion to move the pockets with the pouch web. The pockets are cammed down into the pouch for bottom-up filling in the same way that bottles are filled with liquids. Final seals at the tops of the pouches are added by horizontal bar-mounted heaters that also utilize orbital motion.

Many packaging functions, however, are still ac-

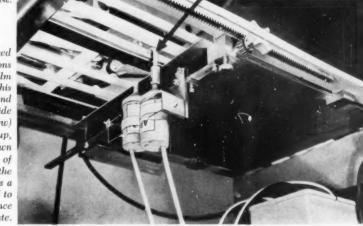
Orbital action of heat-sealing and filling mechanisms on a new 300-per-minute horizontal pouch packer gives the necessary dwell time for thermoplastic-coated papers, yet permits high-speed continuous motion. Up to eight chain-mounted bars (left in photo and drawing) apply vertical and bottom heat seals to the folded web, which is then divided into individual pouches by a special servo-controlled rotary cutter. The pouch's final seal (right) is also orbital.





SOUND TUBE

for such difficult packaging operations as the registration of an unprinted film bag for label application. On this labeling machine, the sending and receiving transducers are mounted side by side under the unit (bottom view) and the unseen vibrations are piped up, over the bag conveyor, and back down again to the receiver. Interruption of sound beam by bag, passing under the sound tube end (arrows), triggers a relay that causes the printed label to be released and applied with tolerance of 1/64 in. at speeds to 150 a minute.



complished with reciprocating motion. And the speed and accuracy of these particular devices is currently undergoing marked improvement.

Faster reciprocating actions

Perhaps the most noteworthy trend is the current increase in pneumatic pistons to control remote packaging functions and even to operate entire packaging machines. In the past, many mechanical engineers shied away from such devices, despite their economy and simplicity, because they were often considered inaccurate and excessive in maintenance. Such opinions are no longer valid with the advent of pneumatic devices that are more rugged and precise—another improvement in packaging machinery which stems from the military.

For remote operation, simple air-operated pistons are being used for such extra packaging functions as carton feed and coding and leaflet insertion, where expensive gears, cams and levers would be necessary to actuate the operation from an electric motor.

Some machine designers have demonstrated their confidence in pneumatic devices by using air pistons to operate a whole machine.

On a new wrapping machine (Versa-Pak), built

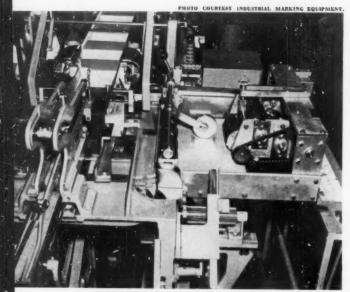
especially for shrinkable-film packaging, all motions for product feed and film wrapping and sealing are governed by four pneumatic cylinders which can be quickly adjusted in stroke to accommodate products that vary widely in thickness.

An all-pneumatic packager (Conapac), designed in Europe and recently introduced into this country that forms, fills and seals rigid plastic trays, utilizes up to 11 air cylinders and is said to be substantially lower in cost than a similar machine constructed with a conventional electrical-mechanical drive. Pneumatic action is used in this unit for every motion from thermoforming and trimming to package conveying and filling. So accurate are these pistons that they are also used on this machine to register and apply to the tray a pre-printed roll film which is then heat sealed to complete the package,

Simpler mechanical components

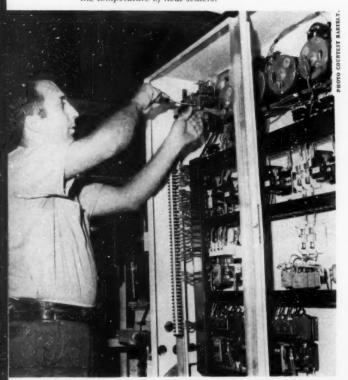
At the same time, mechanical means of achieving motion have made great progress. Their direction has been mainly toward simplicity.

One new vertical pouch packer (Hayssen) has just been drastically redesigned in the drive compartment, with the complete elimination of a tradi-



Miniaturized imprinters give packagers flexibility by permitting changes in package copy directly on the packaging line. This flexographic printing unit is installed on a wrapping machine for pipe tobacco.

Tiny plug-in parts for electrical systems enable elaborate electronic-control cabinets to be arranged in a minimum of space, yet are readily accessible for maintenance. Here, a mechanic is shown adjusting a variable transformer that controls the temperature of heat sealers.



tional, but cumbersome, rack-and-pinion drive and a heavy counterweight that balanced the equally heavy heat-sealing head. Instead, this machine now features a light and simple crank drive connected to a sliding cam. Counterbalance for the heat sealer (which has been cut from 300 to 65 lbs.) is attained by placing two sealing heads in opposition. This mechanical streamlining, which has not reduced day-in, day-out performance in any manner, has jumped total output of this machine from 80 to more than 200 pouches per minute.

It should be noted at this point that lightweighting measures have not been limited to drive mechanisms alone, however. Entire packaging machines have been greatly reduced in mass by switching from traditional cast bodies to equally strong, but lighter, welded frames—a trend so pronounced that it is now almost universal. Also, aluminum castings are coming into use for bulky components. In one instance, a large turntable for a high-speed liquid filler (Pneumatic Scale), the lightweight metal shows great promise as a replacement for cast iron. Not only are the big pieces easier to machine when made from aluminum, but the resultant filler has considerably less inertia, which reduces clutch and brake wear during operation.

Cam actions for reciprocal motion have also been the subject of much study, with the development of several new barrel cams to replace standard Geneva gears and to increase significantly machine performance. Providing much more flexibility of operation, these devices have been used recently in high-speed bottle cleaners and other packagers to smooth out acceleration and deceleration of the machine and to prevent backlash and strain that cause excessive maintenance problems.

Even Geneva gears have now been broadened in application by the use of such auxiliary devices as elliptical gears and variable cams that modify the motion. In a new rotary bottom gluer for cartons (Pneumatic Scale), elliptical gears are combined with a Geneva drive to speed up motion from point of inertia. This gear combination provides faster index start with less horsepower. Therefore, it is a smoother mechanism with longer machine life.

In a somewhat similar mechanical situation, a variable cam is attached to a Geneva to smooth out acceleration-deceleration of a start-stop feed chain on a new gross-weight carton filler for powdered detergents and flour mixes (Pneumatic Scale) and thus prevent slopping of the fine product, which acts like a liquid in high-speed packaging operations.

Abrupt acceleration during start-up has been eliminated by still another relatively new device in a continuous-motion rotary filler¹ for glass jars

^{&#}x27;See "Horizontal-Auger Filler," MODERN PACKAGING, Sept., 1961, p. 132.

(Mateer). Here, a "dry-fluid" clutch, containing lead shot, is coupled with a high-torque motor, which is needed to overcome inertia of the large turntable. The unique clutch, however, smooths machine action and prevents the possibility of damage to glass containers in the machine.

New ways of control

Harnessing of diverse mechanical actions into a smooth-running operation is the function of increasingly complex control systems—though manufacturers are trying to hold such complexities to a minimum to match the limited capabilities of most maintenance personnel in packaging plants.

For this reason, some designers tend to shy away from electronic systems and to favor simple mechanisms such as pneumatic valves. In addition to the obviously less complex advantage, the pneumaticvalve controls offer the advantage of ready-made explosion-proof systems in most instances.

Efficiency of such systems in the control of packaging operations is exemplified by the previously mentioned gross-weight filler for fine powdered products, where pneumatics are used in place of knife-edge balance scales for accurate weighing and additional miniature air pistons actuate a mechanical clutch drive for product feed. An additional innovation in this machine is the use of polyethylene tubing in place of copper for air lines.

A new British overwrapping machine (Clavell & Bates) employs similar micro air valves to provide running adjustment of film folders and plows when operating with tricky thermoplastic films.

A very new control technique that is now entering the packaging field is based on ultrasonics. Developed for military detection, high-pitched sound waves are equally applicable for the detection of packages, for counting, or for triggering mechanical packaging operations. Biggest advantage of this device is that it is unaffected by dust, which sometimes limits operation of photo-electric detectors. Composed basically of a sending and a receiving transducer, it is compact and can be used in interrupted-beam or reflected-beam applications.

Improved electrical controls

Despite these special developments, electrical control systems are still in the majority. And there is intensive work going forward both to improve and to standardize² construction and operation of the many components that make up electrical or electronic packaging-equipment circuitry.

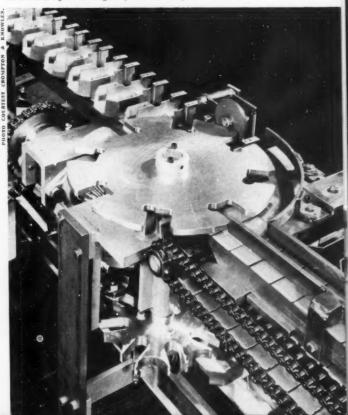
Perhaps the biggest aid—again from the military—is miniaturization, which has greatly reduced the

size of such electrical elements as limit switches and photo-eye controls, enabling electrical devices to be positioned at critical control points on packaging machines with a minimum of waste space. Miniaturization of such components as relays has also reduced the size and complexity of control cabinets and permitted more efficient layout of these electrical centers for easier maintenance. This is exemplified in the recently revised control system for the horizontal pouch packer mentioned earlier. Space savings have also been achieved by substituting transistors for electronic tubes, which in the case of a high-speed labeler (New Jersey Machine) has enabled an entire reflective photo-electric control system for registering web-fed thermoplastic labels to be packed into a box measuring only a few inches in cube. A similar system controls all machine action in the previously mentioned shrink-film unit.

Specialized packaging functions

Especially in those operations and techniques that are peculiar to the packaging field—such as heat sealing, container forming and feeding, and product

Unusual in-feed on a complex cartoning machine that assembles photographic-film canisters, mailing bags and leaflets brings both canister and bag together at this transfer wheel. Unstable canisters (traveling right to left) are kept under control by a spring-loaded wheel and are firmly seated on the U-shaped bags in the bucket carriers. Action is controlled by Geneva gear (lower center).



²See "Standards for Electrical Diagrams," Modern Packaging, Oct., 1961, p. 140.

identification—there has been rapid adoption of new outside techniques and components and strong development of new methods within the field.

Growth of thermoplastic films and thermoformed sheet containers has centered attention on heat sealing, particularly for pouch-forming machines. Simple heating and clamping techniques that worked on coated cellulosic materials have been adequate only while thermoplastic packaging was in the slow-speed stage. With packaging rates now leaping into the hundreds per minute, new devices become necessary to control accurately temperature, pressure and time—basic elements for a hermetic seal, Conventional impulse heat-sealing machines are generally not fast enough for this job.

The newest and most radical of the methods now under development again employs ultrasonics. Operating at vibrations above the range of the human ear, ultrasonic impact of shear-wave tools literally "hammer" or "rub" two plastic materials together at heat levels that are only a fraction of that employed in standard heat sealing.³ With ultrasonics, foils and films can be joined directly without the use of coatings and are unaffected by product contamination in the sealing area. While great efforts are now being made to apply this technique to con-

3See "Ultrasonics: When?" Modern Packaging, July, 1961, p. 100.

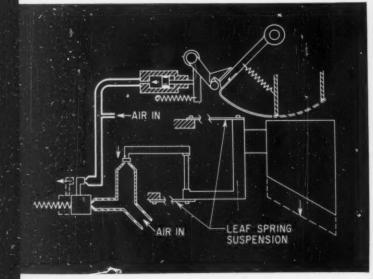
ventional packaging machinery, work is being held up until ultrasonic energy can be applied to a long bar sealer, since the present linear welders are not practical for most high-speed packaging applications.

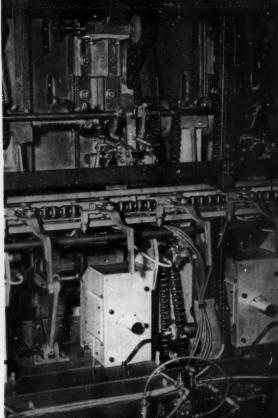
Pending further developments in ultrasonics and in such other relatively new methods as dielectric and ultra-high-frequency heaters, engineers have devised mechanical improvements to resistance and impulse heaters that give stepped-up performance.

One of these is a cam-action sealing and cooling unit used on a new vertical pouch packer (Bartelt) that employs five sets of bars. Two sets of cold bars on the outside grip the thermoplastic film above and below the seal area. At the proper point, a pair of inner, resistance heat-sealing bars, equipped with a cut-off wire, make the seal and divide the pouches. These bars are immediately retracted by cams and replaced with two sets of chilled bars that cool the film and set the seal. The advantage of this system is that the pouch seams are made under slack tension without the weight of the product resting on the hot seam. Also, since resistance heating bars are always hot, speed of sealing is increased.

Another heating device, installed on the simplified vertical pouch packer previously mentioned, employs double-acting pneumatic cylinders that operate toggle arms to lock [Continued on page 239]

Pneumatic control of mechanical packaging functions is spreading and is exemplified by this new gross-weight carton filler, shown here under construction, which has an air-jet weighing system (diagram). Additional air pistons (right above weighing system) also actuate mechanical clutches that govern the carton conveyor.





Keyed to convenience

Novel appeal of a roll-up key on a collapsible metal tube helps a premium-priced Swedish toothpaste

break into the crowded and competitive

American dentifrice market

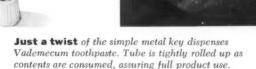
What are the chances of success for a packaged newcomer that not only butts heads with the well promoted giants in a crowded and highly competitive product field, but also is saddled with the merchandising disadvantage of a premium price?

Statistically, they are poor. But statistics can be upset and this is the story of a Swedish concentrated toothpaste called Vademecum that—thanks largely to a novel convenience-packaging feature—reportedly has become a fast-turnover item in regional markets in just a little more than a year after its introduction into the U.S. This company's intriguing innovation in collapsible-tube packaging should interest other users of tubes, as well as all packagers of paste-like products.

Produced by Barnängen's of Stockholm, Vademecum has been sold for some 50 years in Europe and is now being marketed in this country through Golden Valley National Sales & Distributing Co., Palo Alto, Calif. The toothpaste comes in a conventional collapsible metal tube with a broad-based plastic cap that permits the container to stand on end. However, its unusual feature is a simple metal key with which the purchaser can roll up the tube tightly as its contents are consumed. The neatness and no-waste convenience of the roll-up key are merchandised heavily in all media advertising and point-of-sale promotion for Vademecum.

The key, which is similar in appearance and operating principle to the familiar metal key on a can of sardines, is packed loose in the carton for each tube of toothpaste, together with a paper insert containing use directions. It is applied simply by slipping it over the tube's flat bottom end.

U.S. marketing of Vademecum toothpaste began in June of 1960 and originally its distribution was limited to retail drug outlets in a few regional areas. Price of the product—79 cents for a 2½-oz. tube, the only size sold—did not indicate that it



could offer serious competition to the multiple-size, low-price, deal-offer merchandising efforts of the solidly entrenched leaders in the field.

However, says Golden Valley, consumer acceptance was so enthusiastic that distribution spread quickly to chain food stores and to broader marketing areas. The product is now sold regionally in the East, South, Midwest and Far West. Plans are to expand distribution nationally.

Although current sales figures are not available, Golden Valley reports that initial sales volume of a few thousand tubes of Vademecum per month has been multiplied many times over. The product is said to be moving well even in direct shelf competition with the biggest and less-expensive brands.

Loose key is cartoned with each tube of toothpaste and is applied simply by slipping it over the end of the tube. A broad-based cap permits the tube to stand on end on the medicine-cabinet shelf.



Upgrading with color

Rich new packages for Stanley Home Products, profusely decorated with color and gold, reflect a change in strategy for products that sell on their appearance in a home setting

A conservative family design used by Stanley Home Products, Inc., since 1953 is giving way to a kaleidoscope of elegant new aqua, lilac, pink and coral packages—all of which are richly embellished with metallic gold.

These packages will never be seen on a store counter. But all across the country they will introduce new color excitement at approximately 12,000 Stanley Hostess Parties that take place in homes every weekday and will, the company believes, upgrade its whole line of some 300 products.

Stanley Home Products' line, devoted to household items and grooming aids, is sold principally to Stanley dealers and almost exclusively by them at hostess parties held in consumers' homes.

Recently the company concluded that its familiar black, gray and red packages, while still doing an adequate job of identifying the maker, were not keyed to color concepts of the 1960s. Also the matter-of-fact, direct brand approach of the old packages lacked appeal for purchase as gifts. Stanley (\$58 million gross; 2,000 employees*) feels there is a big potential gift market for its products, packaged with a less commercial look, among many women who appreciate the ease of home shopping.

Accordingly, a program has been undertaken to redesign the whole line in color combinations known to have wide feminine appeal. The folding boxes illustrated in full color on the opposite page are just the beginning of package revamping throughout the company's entire operations, covering bottles, jars, aerosols, cans, cartons, boxes and other types of containers.

The new cartons are three-color printed, as were the former packages, but they represent a sizable investment in upgrading for large areas of color printing and the use of metallic gold. The board is clay coated on both sides to provide a clean white liner surface inside, which former packages lacked.

Special colors have been selected to identify packages for the different product groups, but keyed for color harmony when demonstrated together at the

home parties: pink for bathroom accessories, aqua for kitchen aids, lilac for the moth preparations, coral for the line of cleaning products. Decorative motifs further identify the various products: abstract symbols that suggest the shape of a moth on moth-preparation packages, swirls that suggest stove tops on a kettle-cleaner package, an arrangement of squares that suggests linoleum blocks on the carton for a broom head; hexagonal shapes to symbolize bathroom tiles on a bath-mat package.

The company has insisted on rigid registration control in order to obtain clear, clean reproduction of all of the new designs.

The whole program is already paying off, the company says, in enthusiastic response from Stanley's thousands of dealers for whom selling is being made easier by these attractive new packages.

SUPPLIES AND SERVICES: Design and production of cartons by Federal Paper Board Co., Bogota, N.J.

Cld packages provided sufficient identity, but they lacked feminine appeal for purchases destined for gift giving.



^{*}Dun & Bradstreet.



STANLEY



STANLEY

Quality plus





Quality plus



STANLEY



STANLEY.







New colorful cartons have family resemblance, but achieve variety with special colors to identify the different product groups: pink for bathroom accessories, coral for cleaning products, lilac for moth preparations, aqua for kitchen aids. Colors are selected for harmony when packages are grouped in home-party displays.

COLOR PLATES AND PRINTING BY FEDERAL PAPER BOARD.

Open-end bands of plasticized vinyl film give these trays of fresh produce the look of having gone through a heat-shrink tunnel. But the tight fit, achieved without heat, is due to the tough film's stretch and cling properties.

A full year's pioneering experience by the Food Mart supermarket chain indicates that plasticized vinyl film, in a new food grade, is developing into a serious contender for produce-packaging honors. On the strength of inherent economy and effective performance, it poses a challenge to some long-established thermoplastics (as well as to the newly important shrinkable types*) and to cellophane, the entrenched leader in the field.

Plasticized vinyl heretofore has been used chiefly for overwrapping or bundling packaged non-foods. But the credentials of the food-grade film as a produce-packaging material, according to Food Mart, are impressive. It is tough, crystal clear, glossy and non-fogging. The film also has excellent stretch and cling qualities that are reported to effect a tight, attractive wrap without the need for invest-

TIGHT-WRAP

ment by the packager in heat-shrink equipment.

Perhaps most significant to the future of this film, not only in produce packaging, but in broader foodfield applications as well, is its basic economy.

According to the latest figures, the material—with a yield of 28,700 sq. in. per pound—is priced, in ¾-mil gauge, at 2.46 cents per 1,000 square inches. No other thermoplastic produce film offering the same stretch and cling properties, according to the film producers, can match this price.

The application

Food Mart, Inc., headquartered in Holyoke, Mass., operates eight supermarkets in the New England states. For some years, the company's stores had been packaging fresh fruits and vegetables in sheeted cellophane. But in June, 1960, after the Food & Drug Administration had approved a foodgrade extruded plasticized vinyl for commercial packaging, the company began to experiment with use of the new plasticized vinyl film for produce in its Holyoke supermarket.

According to Kenneth G. Abrahams, general manager of Food Mart, the results of the Holyoke experiment were so satisfactory that all other stores in the chain were quickly switched over to plasticized vinyl for produce packaging.

The tough thermoplastic film, says Food Mart, has all but eliminated a former costly and wasteful problem of package breakage, experienced both in the packaging operation and in handling by store personnel and customers. Additional packaging-material economies, over and above the plasticized vinvl's low initial cost, reportedly are afforded by the film's stretchability and its excellent heat-sealing property (which minimizes the amount of material overlap needed at the sealing point).

From a merchandising point of view, the transparent film's soft "feel" and its tight, product-conforming fit are claimed to enhance package appearance and thereby upgrade the self-selection appeal of fresh produce for consumers.

Food Mart also reports substantial savings in instore packaging labor and time through the use of a semi-automatic wrapping and heat-sealing machine. The compact unit, said to cost about \$100, consists simply of a wrapping stand (on which are mounted rolls of the vinyl film) and an electric cut-off wire and sealing plate. Two or more of the machines are installed in each of the chain's outlets, depending upon the extent of customer volume.

^{*}See "Shrink: A New Dimension in Films," Modern Packaging, Aug. 1961, p. 116.

FILM FOR PRODUCE

Stretchable plasticized vinyl, combining 'shrink-film' appearance with basic economy, toughness and eye appeal, brings savings to Food Mart chain's produce-packaging departments

Produce which is to be packaged in multiple units—such as ear corn, peppers, tomatoes, apples and lemons—is placed by hand into a molded-pulp tray positioned on the wrapping stand. The operator strips off the required amount of film, which is cut from the roll by the hot wire. The tray is then tightly sleeve wrapped in a manual operation, leaving both ends open to permit "breathing" and the overlap is heat sealed at the bottom of the tray.

Large items of produce, such as watermelon sections, are film wrapped without use of a tray.

For full-overlap applications, desired by many packagers, the machine is equipped with a perforator that automatically punches air holes in the film.

Gummed paper labels, which have been imprinted with price and weight data, are applied by hand to all of the finished packages.

The average produce-wrapping operation, says Food Mart, takes about 10 seconds. This is twice as fast as the former manual process in which heat-sealing cellophane was used. According to the company, the snug, clinging sleeve wrap remains taut and wrinkle free even after prolonged display in the self-selection produce bins of retail stores.

SUPPLIES AND SERVICES: "75 PW Vitafilm" plasticized vinyl film by Goodyear Tire & Rubber's Packaging Films Dept., Akron 16, O. Wrapping-stand/heat-sealer unit by J. B. Dove & Sons, Bristol, Pa.





Plastic sleeve for drug sample

Acetate-butyrate sleeves with an integral color that is incorporated during the extruding operation are now being used by Smith, Kline & French Laboratories, Philadelphia, for physicians' samples of a new Ornade Spansule, a capsule containing antihistamine. Said to cost only about ½-cent per package more than uncolored plastic and to be far less expensive than other means of decoration, the extrusion-coloring process is accomplished with a minimum of tooling by means of a split die equipped with a color-injection device. By this method, says the supplier company, up to two colors can be applied to the tubular container, which is also made of such cellulosics as proprionate.

In the SK&F open-end sleeve, a deep, opaque blue is used on the back, bottom side and about ½-in. of the front of the package. The rest of the front face and the top side of the plastic sleeve package is left transparent. A matching blue is used for product identification on the three paperboard catch covers inside the sleeve that each hold two capsules. The company trademark is printed in red. The blue band also helps to cover the overlapping seam on the catch covers. Sleeves by Extruded Plastics, Inc., Norwalk, Conn.

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Tums in a family-size dressing-table container



OLD

TUMS.

NEW

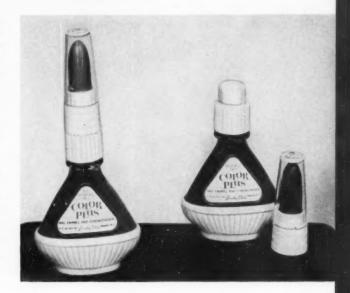
A trend away from the "medicine-bottle look" by packagers of proprietary drug products is indicated by Lewis-Howe Co.'s attractive new 100-tablet glass bottle for Tums antacid tablets. Designed to upgrade retail shelf appeal as well as to encourage at-home display on the dressing table, it is a far cry from the company's former conventional shouldered round bottle with metal screw cap. The sleek new family-size container tapers outward slightly from its top to its base. An unusual green-tinted polyethylene snap-on cap complements container shape. Molded-in ridges on the narrow sides of the closure provide a gripping surface to facilitate its removal by means of slight upward thumb pressure.

The completely revamped container also features a square-shaped paper label which gives prominence to a new stylized mint-leaf logo. The use of simple, modern type face and elimination of former decorative label frills are calculated to enhance the bottle's non-commercial appearance. Container, cap and label designed by Royal Dadmun & Associates, 1118 N. Calvert St., Baltimore 2. Glass bottle and molded polyethylene closure by Owens-Illinois, Toledo 1, O. Paper label by Wheeler-Van Label Co., Grand Rapids, Mich.

Lipstick rides piggy-back on nail-polish bottle

A cap within a cap within a cap is the unusual construction of a three-piece molded plastic closure that gives a hitch-hiking ride to a matching petite-sized lipstick on the new package for Lanolin Plus "Color Plus," called "Lips 'n Tips." The closure assembly is comprised of (1) a molded urea screw cap into which is fitted the applicator brush; (2) a second molded urea section holding the lipstick and friction fit over the screw-cap section; (3) a transparent polystyrene overcap which protects the lipstick and gives a clear view of the lipstick shade. It is another example of how plastics can be used in combination-package construction.

The interesting new two-in-one package offers the consumer a matching trial lipstick with the purchase of the nail enamel. The lipstick section may be removed to carry in the purse. The precision-molded closure assembly is designed to complement the striated tapered cap on the regular "Color Plus" packages, identified with white polyethylene baskets which are designed to hide nail-polish precipitation and to give stability. The piggy-back lipstick unit is hand assembled. Three-piece urea-polystyrene cap, glass bottle and polyethylene basket by W. Braun Co., 300 N. Canal St., Chicago 6.

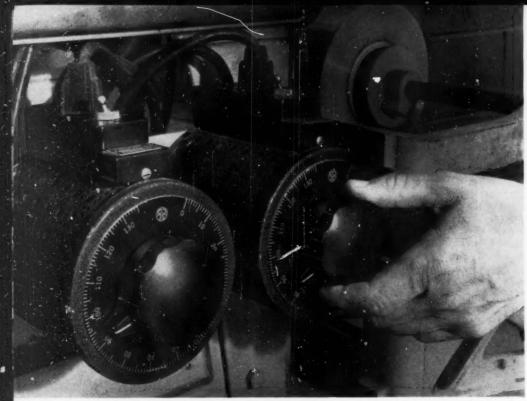


'Peek-a-boo' carton reveals rainbow-jacketed bottle

In the annual gift-wrapping splurge of the nation's distillers, an original idea is increasingly harder to come by. Noteworthy, therefore, is the new concept for Old Forester 86-proof bourbon. The standard bottle is being wrapped first in a rainbow-striped foil bag and tied with metallic ribbon. The jacketed bottle is inserted in a "peek-a-boo" carton made of embossed, white-faced board and die-cut with 144 circular openings, 36 to each side, to let the rainbow-hued foil jacket sparkle through.

The carton was engineered like a bridge, representing nearly four months of study and testing to determine proper spacing and diameter of the openings that would assure structural efficiency. Trademark identity is confined to a removable printed cellophane band, applied to the carton blank and secured in the carton s m. Commercial copy "disappears" when the band is removed. Designers, Raymond Loewy/William Snaith, 425 Park Ave., New York. Cartons and printed cellophane bands by Bradley & Gilbert Div., Standard Packaging Corp., Louisville 1. Color-striped aluminum-foil bags by Central States Paper & Bag Co., Inc., 5221 Natural Bridge Ave., St. Louis 15.





Greater uniformity of temperature for heat-sealing plates can be achieved by installing a powerstat or voltage regulator in the control system. Unit lengthens "on" period of plate—and thus keeps temperature close to the most efficient point for sealing cellophane.

MACHINE TIPS FOR

hile cellophane is accepted generally as a film that runs with an unusually high degree of efficiency, situations may sometimes occur where small modifications in packaging machinery—practical changes that a packager can make himself—will enable it to be run even more efficiently or at a higher speed.

Several examples of such simple adjustments have been collected, based on contacts with thousands of packagers who are users of cellophane.

For simplicity, these machine modifications have been divided into three separate categories:

- 1. Improving over-all operation.
- 2. Increasing wrapping-machine speed.
- 3. Running cellophane film after an abnormally long or an improper period of storage.

Better operation

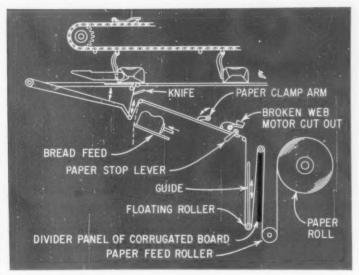
A key advantage of cellophane on wrapping machinery is its wide sealing range, which enables this film to furnish strong seals at temperatures that vary by as much as 50 deg. F. However, thermostats on some machines, though designed to control

sealing-plate temperature within 10 to 20 deg., can vary sometimes as much as 100 deg. This may be due to such faults as corrosion of parts or insufficient insulation. The results are discolored or unsealed film, depending on whether the sealing plates are too hot or too cold.

Sealing-plate temperature can be accurately regulated, however, if the thermostat is only given a chance. At the Pacific Coast plant of a national cookie baker, for instance, where moistureproof cellophane was being run, thermostat performance has been improved by insulating the device against the cooling effects of the surrounding air. Before treatment, tests showed that plate temperatures varied by 50 to 75 deg. F. Then a cover of asbestos was installed over the thermostat and the entire back side of the sealing plate. This produced a significant improvement in the ability of the thermostat to respond to temperature changes inside the sealing plate and reduced temperature variations to 25 deg. This insulation technique can provide further benefits, too, which will be discussed later.

In another case, on a wrapper for paper napkins, the sensing device of a thermostat was relocated

^{*}Manager, Customer Service Section, Market Development & Customer Service, Film Dept., E. I. Du Pont de Nemours & Co., Inc., Wilmington



Static build-up on some cellophanes, which can cause the web to wind back on itself or on the drive roller, is quickly corrected with a divider panel of corrugated board that is slipped between the loop of film as it passes from the feed to the tension rollers.

Simple modifications or attachments that any packager can install will often enable equipment to run more efficiently and may overcome film problems caused by storage. By Walter M. Farrelly*

CELLOPHANE

closer to the actual heat-sealing surface. This modification allowed the thermostat to react more quickly to changes in sealing-plate temperature, a necessity in this installation because of wide variations in product flow. In this case, temperature variations were reduced from 40 to 25 deg., enabling the machine to wrap the paper napkins efficiently at a speed of 35 packages per minute.

Another way of making a thermostat register more accurately is to improve its contact with the heater place by cleaning contact surfaces thoroughly to remove dirt and oxidative products and thus insure a true temperature reading from the plate.

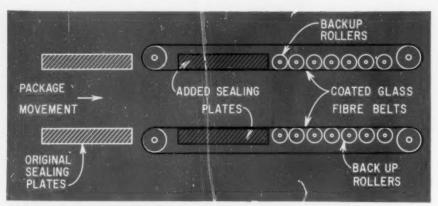
Other temperature-control measures

Since unusually wide variations in sealing temperatures may cause uneven running of cellophane, it is advisable to have heating elements remain "on" for as long a period as possible.

However, such a practice would obviously cause overheating of the plate at regular voltage levels. So, in order to lengthen "on" periods yet keep heat at the proper temperature, it is often advisable to place a powerstat in the heater line to regulate applied



Maintenance of temperature throughout heatsealing plate and closer regulation of sealing temperature are attained by covering entire back side of plate and thermostat with asbestos insulation. This holds heat in plate and prevents thermostat from being cooled by surrounding air.



More heat-sealing capacity for higher-speed operation can be exacted from standard packaging machines by installing extra heater plates in compression section. Glass-fibre belts coated with Tefton are substituted for conventional rubber belts and back-up rollers are removed in this area.

voltage. This aids greatly in providing a more uniform sealing-plate temperature.

By lowering the voltage 20%, a New England candy bagger was recently able to iron out sealing problems on a form-fill-seal machine that was running on heavyweight polymer-coated cellophane and experiencing a wide variation in seal strength and appearance, due to sharp changes in the temperature of sealing jaws. After the powerstat was installed, the machine thermostat left the heating elements "on" about 90% of the time, maintaining a uniform temperature of 245 deg. and enabling a smoother sealing operation at 60 bags per minute.

At least one bag-machine manufacturer (Simplex) now equips some of its units with powerstat controls,

Static elimination

Although cellophane exhibits less static than most other films, some cellophanes (particularly those with a polymer coating) may still show a degree of "cling" if they are being used where relative-humidity conditions are exceptionally low.

Elimination of this sort of static on a 45-unitper-minute carton wrapper at a New York tomato pre-packaging plant was achieved recently by draping a piece of conductive tinsel across the web of cellophane at the unwind end. Conductive tinsel is made with a supporting cord that contains a continuous metallic conductor. A quick substitute for tinsel is a wet towel draped over the unwinding roll.

On some bread-wrapping machines, even a small degree of static can sometimes cause the web to cling to itself with considerable force as it passes up over the feed roller and down to the tension-control roller. This cling may cause the film to wind back on itself or onto the driven roll, thus pulling the film back from the product wrapping area of the machine and requiring refeeding of the cellophane film back onto the rollers.

To eliminate such a situation at a prominent Eastern bakery, a divider panel made of corrugated board was used on a bread wrapper running polymer-coated cellophane. Placed between the two webs where the film goes up over the feed roll and down the other side of the tension roller, this simple device shielded the webs from each other and solved the problem completely at virtually no cost.

Higher machine speeds

Cellophane has been accustomed to meeting such speed requirements as the wrapping of individual candy pieces at a rate of 400 per minute and cigarette packages at 125 per minute.

However, in some machine applications there may be a need to boost production speed above present



levels—primarily to cut production costs and obviate unnecessary capital investment. But two problems are usually encountered before the production speed of a packaging machine can be raised: (1) increases in product feed and (2) maintenance of dwell time for heat sealing.

The first is a manufacturing problem that will not be given attention here, except to point out that from our experience some type of automatic product feed almost always proves to be faster and more reliable than hand feeding.

The main problem in increasing wrapping-machine speed is to attain the proper heat seal on the cellophane at the increased rate. Although a split second of "dwell time" is all that is required to raise the temperature of the cellophane coating to the sealing point—and some of the newer cellophanes have heat-seal temperatures that are 50 to 75 deg. less than that required for former types—the film's contact with the plates still must be long enough to accomplish this purpose.

The best answer is to increase the sealing area over which the package passes, rather than to raise the temperature at which the seal is made. Whenever sealing temperature is raised higher than 450 deg. F., the outer surface of the cellophane is likely to scorch before the inner surface of the wrap gets enough heat to soften the coating for sealing. As a

result, a weak seal may be formed and the film may have an unattractive appearance.

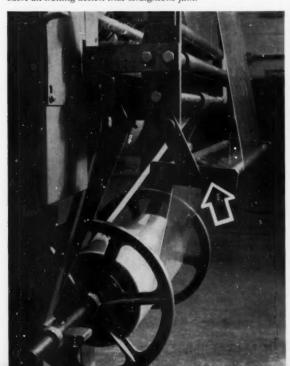
To increase the effective sealing area and thereby increase production speed, one of two basic methods may be used: (1) a build-up of present heating capacity or (2) the addition of extra heaters.

The first technique was employed recently on an overwrapping machine in the plant of a Texas candy maker that was running at 75 packages per minute with polymer-coated cellophane. The modification was based simply on correcting a condition that often exists on packaging equipment—inequality of temperature over the face of the heat sealer.

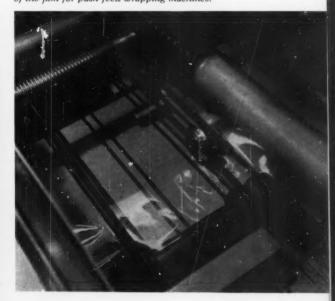
Initially, this candy manufacturer was getting a proper seal only at the center point of the sealer, which registered about 425 deg. The ends of the plate contributed little to the sealing process, since they were only at 200 deg. The net result was that production speed had to be slow enough for the film to seal on what amounted to a 3-in. plate, for that was the only part of the heat-sealing plate that was reaching a sealing temperature.

To correct this situation, uniformity of plate temperature was improved by insulating the entire back of the sealing plate with asbestos. By holding the heat more efficiently inside the plate, the temperature difference between various areas of the plate was reduced to about 75 [Continued on page 236]

Beaded cellophane that has become swollen by storage at extra-high humidity conditions can be made to run by adding snubber bars (arrow) between the film and the feed rolls. These fixed bars increase film tension and exert an ironing action that straightens film.



Distortion of printed film from long storage under improper conditions can be overcome in machine handling by slipping a piece of corrugated board under spring belts in film-feed section. The added device, good for short runs, increases corrugation of the film for push-feed wrapping machines.





Heat-transfer

Johnson's set-up for three different polyethylene-bottled products shows advantages in decorating on the line, proves that the most difficult shapes can now be automatically printed

Concave panels, both front and back, on two sizes of Stride polyethylene bottles required modification of standard heat-transfer labeling equipment initially designed for round and oval bottles. Stride containers are handled by packager at 50 to 60 units per minute and for one-half a cent less than the cost of pre-labeled bottles.

A new milestone has been reached in heat-transfer printing with installation in the packager's own plant of advanced, automatic equipment for decorating polyethylene bottles. This is a significant forward step in a series which began with the prototype machine for oval bottles in 1958, progressed through the first automatically applied, wrap-around heat-transfer labeling of round bottles and then achieved the "rocking-web" principle which allowed similar decorating of unusual cone-shaped bottles.

Each technical advance gave packagers either cost savings, or a pronounced marketing advantage, or both. But—except for the first semi-automatic equipment—newly developed machines have generally been operated by the bottle molder or an outside decorator before shipment to packagers.

Now S. C. Johnson & Son, Inc., is heat-transfer decorating its own polyethylene bottles in its Racine, Wis., plant at an average cost ½ cent below that of pre-labeled bottles. And Johnson has increased packaging efficiency by stocking plain bottles which can be decorated as needed. Label scuffing and soiling are minimized through reduced handling, the company says. From Johnson's experience it appears that virtually any bottle shape which is capable of being blow molded may now be decorated by the heat-transfer method of printing.

Johnson in the last two years has introduced three major new products in polyethylene bottles: Johnson liquid shoe polish², Holiday car washing cream³ and Stride floor wax.

Basic labeling equipment for all three bottles is the same. However, the turrets (these are the parts that hold the bottle, guide and heat the label web and press apply the label to the bottle) are individually designed for each specific bottle shape. Of these, the Holiday oval could be considered conventional in that it was a modification of the first turret design for cylindrical bottles. The shoe-polish turret uses the "rocking-web" label motion in conjunction with conventional oval-bottle handling methods. Stride turrets are of a completely new design—a design that was dictated by the "rectangular" bottle shape never previously heat-transfer labeled.

Stride and Holiday run on the same basic line. All they really share, however, are bottle hopper, label-base machine, the conveyor system and the oven. The Stride bottle's unusual shape—a tapered rectangle with two concave surfaces—requires a complete change-over of labeling-turret assemblies. Stride and Holiday both run at approximately the same speed—50 to 60 bottles per minute.

The Stride bottle, in both 14- and 26-oz. sizes, has squared shoulders and side edges and a concave

¹ See Modern Packaging, April, 1958, p. 106; May, 1959, p. 108; and May, 1960, p. 102.

See "Shoe Shines Made Easy," MODERN PACKAGING, May, 1960, p. 102.
 See "Johnson's Holiday," MODERN PACKAGING, Sept., 1961, p. 120.

labeling moves in-plant

panel front and back extending downward about three-fourths the bottle's height from the shoulders. The tapered sides are slightly convex.

One of the problems with Stride bottle decorating was the fact that it is impossible for the bottle molder to blow mold the bottle's two concave panels with side walls completely uniform. The bottle curve tends to be shallower at the bottom of the panel and deeper toward the top, while wall thickness ranges from 10 mils at the sides of each panel to 60 mils in the center. The more rigid center portion is more resistant to the air pressure introduced into the bottle to provide a firm labeling surface. Initially, this lack of surface uniformity caused a portion of each label to remain affixed to its kraft backing instead of transferring cleanly to the bottle.

After much study, the problem was solved by

making the following three changes from the usual standard heat-transfer labeling procedure:

1. The labeling turret was redesigned to have one revolving platen lobe with bottles conveyed in a straight line past the platen. These mechanical changes provide equal platen and bottle contact over the entire bottle-labeling surface,

The bottle's extra-rigid center panel is made pliable just prior to labeling by a current of hot air directed only at the troublesome panel area.

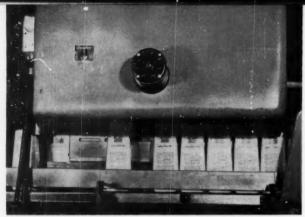
3. Reformulated inks provide a more flexible label for Johnson's new Stride bottle.

Labeling

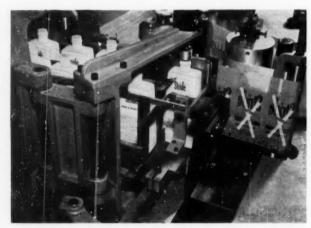
Both Stride and Holiday bottles are labeled separately front and back. Blank Stride bottles are gravity fed from a hopper and manually placed on

Labeling line starts with manual feeding from gravity hopper. Blank bottles move to right for application of back label, then return to the left to receive front label before moving along right foreground conveyor to the oven.

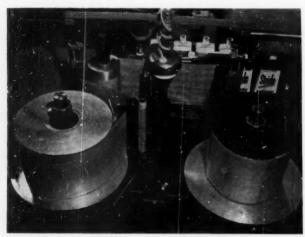




Small pre-heater with baffled lowers (behind bottles) directs hot air at concave panel just prior to each labeling operation. Heat softens the panel to make it less rigid in preparation for leveling the surface by injection of air. Similar pre-heater is used prior to back labeling.



Air cylinder inserted into neck (center) inflates bottle slightly to provide even surface during labeling. This shuttle transfer reverses movement of the bottles to position them for front labels, feeding in from right.



Heated platen (center) revolves as labeling is transferred from web to container. Bottles pass in straight line, a modification of the usual rotary movement unsuitable for the rectangular bottle shape with concave surfaces.

a moving conveyor which passes through a preheater and then to the back-labeling turret. As they pass through the pre-heater, circulating air which has been warmed to 300 deg. F. is aimed for 10 sec. at each back panel through six louvers.

Each bottle is then moved laterally by a camoperated shuttle transfer. A spring-loaded air cylinder projects into the neck of the bottle, forcing the bottle down into a cup on the base of the shuttle transfer. The air also helps flatten out the concavity of the bottle temporarily for a more even labeling surface. Held by nozzle and cup, the bottle is guided past the revolving heated platen. The air cylinder remains engaged until the bottle has received its label. It then moves back to position at the end of the decorating step to pick up another bottle.

There are two basic turret types—one in which the decoration takes place while the bottle revolves on its own center, as for rounds and tapered rounds like the Johnson shoe-polish bottles, and the other in which decoration takes place while the inflated bottle is moving, as for Stride. Thus, the Stride bottle is filled with air while still warm and this air pressure must be maintained without even a momentary release until decoration is completed in order to assure a flattening of the concave surface.

Finishing operations

Labeled bottles move ahead until they reach the second pre-heater and labeling turret, where front labels are similarly applied. Bottles are conveyed in single file out of the labeling section until they are manually separated into two lanes which pass into the oven. (Johnson expects soon to install an automatic bottle-dividing device.)

The 5 min. spent in the 50-ft. oven insures adhesion of the ink to the bottle surface and improves label appearance. The oven's four heated sections range from an initial 350 deg. F. to a final 200 deg. Bottles emerge at about 120 deg. F. after going through a cooling section, then are hand packed into boxes for delivery to the filling lines.

The quality of Johnson's heat-transfer labeling is so high (less than 1% rejection) that 100% manual inspection of each bottle will soon be discontinued.

In addition to the cost saving of ½ cent per bottle, which multiplies quickly into dollars, Johnson is pleased with labeling quality and with the inventory control which in-plant labeling permits. The Stride-Holiday decorating-machine installation is flexible enough to handle most items which Johnson may add to its polyethylene-bottled product line.

Supplies and Services: "Therimage" machines and labels by Dennison Mfg. Co., Framingham, Mass. Blow-molded, high-density polyethylene bottles by Continental Can Co., 100 E. 42 St., New York 17.

New action on 'deception'

The Packaging Institute issues a policy statement in advance of a resumption of Senate hearings in Washington, at which suppliers and supermarkets are to have their say

Stalled all summer by the longest session of Congress in 10 years, the Senate hearings into so-called "deceptive" packaging practices were to be resumed just as this issue of MODERN PACKAGING was going out to subscribers. Scheduled to appear before hearings of the Senate Antitrust and Monopoly Subcommittee in Washington, starting Oct. 25, were some dozen witnesses who would, according to a subcommittee spokesman, "represent the views of all interested parties aside from the consumers and the packagers themselves."

Meanwhile, in a move which can be considered as establishing the official attitude of the nation's largest all-inclusive organization of packagers, directors of the Packaging Institute issued to members a statement urging them to "be ever alert to changes in the consuming public's attitude toward what it wants to know about a particular packaged product" and to "re-examine all packages carefully to insure that the graphic design, copy message and physical construction clearly and honestly represent the product in the package."

The three-day open hearing in Washington, second stage of the investigation, will be directed by Sen. Philip A. Hart (D., Mich.). A full report on the proceedings and their significance to packagers will appear in the next issue of this magazine.

Consumer groups, of course, had their say in a one-sided, headline-making hearing last June that rocked the packaging field back on its heels." MODERN PACKAGING has learned that packagers of consumer goods will get the opportunity to present their explanations and defenses before the Senate Subcommittee some time early in December—a span of nearly six months since the first charges of deliberate deception in packaging and labeling were made before the Senate body and flashed around the nation. The only statement so far on the packagers' side of the story was one by Lloyd Stouffer, editor of MODERN PACKAGING, which was admitted to the record at the end of the first hearing in June.

The line-up of those invited to testify at the cur-

rent hearing was calculated to provide a representative cross-section of management-level opinion from supplier companies, large and small supermarket chains, wholesalers, several industry associations, the food-trade press and others.

The lone representative of commercial-packager interests was to be Paul Willis, president of Grocery Mfrs. of America. The Senate Subcommittee reported that Mr. Willis was asked to appear because GMA includes hundreds of member companies packaging the supermarket products which have come under the heaviest fire from consumers.

Others scheduled to appear were: Robert Sidney Dickens, president of the [Continued on page 229]

Packaging Institute statement

"Recently, considerable publicity, much of it unfavorable, has been directed toward the communications aspects of consumer packages. We are confident the vast majority of those responsible for the manufacture and sale of consumer products take pride both in the quality of their products and in the honest and informative way in which they are labeled.

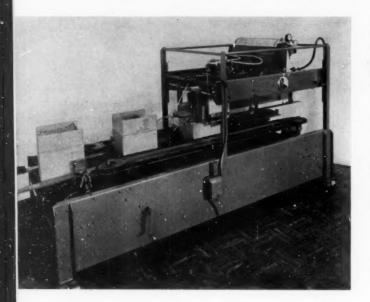
"It is important that those having this responsibility be ever alert to changes in the consuming public's attitude toward what it wants to know about a particular packaged product when it is purchased and when it is used. This is essential if public confidence is to be maintained.

"With this in mind, members of the Packaging Institute are urged to re-examine all their packages carefully to insure that the graphic design, copy message and physical construction clearly and honestly represent the product in the package.

"To achieve these ends, it is recognized that individual products and product industries may have special problems. Where such problems exist, it is possible that these recommendations of the Packaging Institute can be implemented by more specific principles to be established by separate intra-industry groups. The Packaging Institute stands ready to serve as a coordinating agency if called upon."

^{*}See "Deceptive Packaging," MODERN PACKAGING, Aug., 1961, p. 107; "Deception': Progress Report," MODERN PACKAGING, Sept., 1961, p. 107, and "The 'Deception' Pot Still Boils," MODERN PACKAGING, Oct., 1961, p. 112.

Dial attachment on case sealer affords glue economy



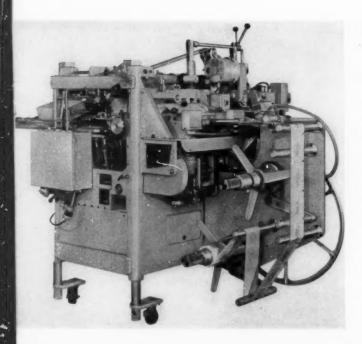
Glue economy and versatility of operation are featured in A-B-C Packaging Machine's Dial Mizer automatic top-and-bottom case sealer. The new horizontal unit includes a dial attachment that permits the operator to adjust glue-spread patterns to satisfy specific needs. It should be of interest to broad-line packagers using a variety of case sizes and styles which require differing degrees of seal strength, depending on the weight or fragility of the case-packed product.

The easily accessible dial attachment makes possible a wide selection of glue spreads—ranging from broad full-flap-length strips to skip-seal patterns of varying length and width. Adjustment is reported to be a quick and simple operation. One setting of the dial regulates the glue pattern for both top-flap and bottom-flap applicators, which are hermetically sealed and pressurized to minimize clogging and dripping.

According to the manufacturer, glue savings of up to 50% can be realized with the new machine. One filling is said to permit a week's normal operation.

A-B-C Packaging Machine Corp., Clearwater, Fla.

NEW MACHINERY



Wrapping-unit flexibility

A current trend toward greater flexibility in packaging machinery is exemplified by Lynch Corp.'s new Model A-2 Wrap-O-Matic automatic wrapper. Designed on the "building-block" principle, the basic unit can be adapted to conform to many types of product shapes, wrapping papers, locations and production lines. Reduced change-over time is reported by the maker.

A variety of different product intakes is available for automatic or semi-automatic feeding from enrober belts and trays. Optional equipment includes various paper feeds, with or without liners and tear tape. At reported speeds of 47 to 140 packages per minute, the machine will handle single or multiple product units, regular or irregular in shape, stacked or in single layers. Upper and lower belts are used in the sealing areas (the bottom one of stainless-steel webbing). The belts continue to move after the machine is stopped, carrying the completed package away from the heaters.

Other machine features include quick-change paper arbors, improved wrapper registration and simple construction. Lynch Corp., Anderson, Ind.

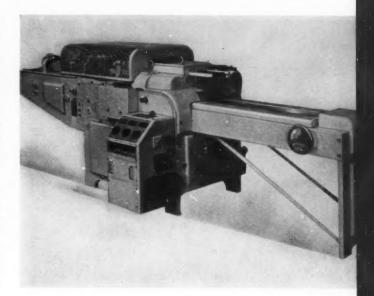
Overwrapper handles conventional or shrink-type films

A streamlined, overhead-conveyor film overwrapper that operates at a rated speed of 65 packages per minute is a new entry from Crompton & Knowles' Wrap-King Div. The automatic machine accommodates all commercially available thermoplastic films. Optional equipment on the straight-line unit is a heat-shrink tunnel that permits the use of shrinkable films.

Sensitive electronic control equipment is designed to assure 100% overwrapping accuracy, says the supplier. The new machine's overhead package conveyor—hinged at the discharge end to facilitate inspection and maintenance—is reported to assure thorough welding and seal cooling under controlled conditions.

All moving parts of the overwrapper (designated CBN Model B9) are accessible simply by removing strategically located guards. For added convenience, all lubricating points and adjustments also are within easy reach. Controls are grouped on a central panel.

Change-over from one package size to another is reported to be a simple operation. Wrap-King Div., Crompton & Knowles Packaging Corp., Agawam, Mass.



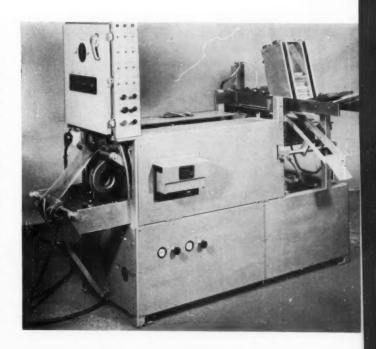
AT THE SHOW

Compact blister packager

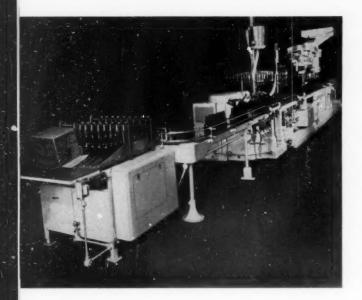
Packager demands for more economical use of in-plant floor space are leading to new supplier developments in compact machinery. An interesting example is Atlas Vac's automatic single-station form-fill-seal blisterpackaging unit. It occupies floor space of only 2 by 6 ft. and weighs approximately 750 lbs.

At cycling speeds of 11 to 15 per minute, it forms blisters up to 5 by 5 in. from acetate, butyrate, vinyl and polyethylene. It also can be modified to handle oriented polystyrene. The Form-N-Seal machine's backing-card feeder can be adjusted to handle cards ranging in width from $3\frac{1}{2}$ to $6\frac{1}{4}$ in. and in length from 4 to 9 in., says the supplier.

In machine operation, the plastic sheet is conveyed through heating, blister-forming and trimming stations. The trimmed blister then travels to the loading area and on to an aluminum sealing platen where heat is passed through the coated backing card to effect a secure seal. As the finished package is ejected down a chute, scrap is conveyed off the machine. Atlas Vac-Machine Corp., 1732 Hudson Ave., Rochester 17, N. Y.



High-speed synchronized bottling line



A synchronized automatic bottling line—consisting of an unscrambler, a cleaner, a multi-head filler and a capper—is now available from Pneumatic Scale. An interesting feature of the new line is that a single jack-shaft drive achieves positive synchronous operation of all its component units. Very high filling speeds can be attained, according to the manufacturer.

As bottles come off the unscrambler, they are conveyed in single file to a rotary inverted air cleaner where they are put through an inversion and cleaning cycle before being replaced in upright position on the conveyor for travel to the filler. At the rotary filling station (eight to 48 heads, depending on production requirements), bottles are filled at speeds which are said to range from 90 to 480 per minute. The final station in the synchronized bottling line is an eighthead capping attachment.

The equipment is suggested for use especially by distilleries, although it is adaptable to all types of liquid and semi-liquid bottled products, says the supplier. Pneumatic Scale Corp., Quincy, Mass.

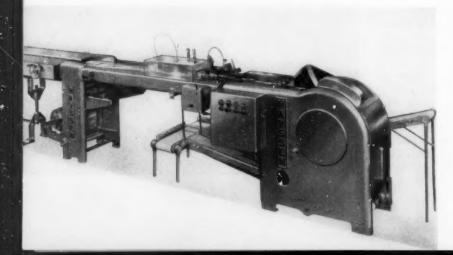
NEW MACHINERY

Non-stop poucher adjusts to varying product lengths

Claimed to bridge the gap between vertical form-fill-seal equipment and conventional overwrap machinery is Hayssen's Model RT horizontal film poucher. Among the features of the automatic unit is an electric-eye control that permits products of differing lengths to be packaged in the same operation without down time for mechanical change-over adjustment.

At the infeed end of the machine, the product is picked up by a moving "belt" of the packaging material. The film web is then folded up around the product and heat sealed longitudinally to form a continuous tube. As the tube is wound around a large drum, a scissors-like sealing and cut-off die closes on the gap between the individual pieces of product. After a half

turn on the drum, the package is completely heat sealed, cut loose and deposited on an outfeed conveyor for case packing. Packaging speeds of up to 100 per minute can be obtained, according to the manufacturer. Package width is largely self adjusted by the size of the product. Package height can be regulated by a hand-wheel control unit. Optional equipment includes a carbon dioxide gas-flushing device for preserving the freshness of cheese slices, baked goods and other food products. Hayssen Mfg. Co., Sheboygan, Wis.

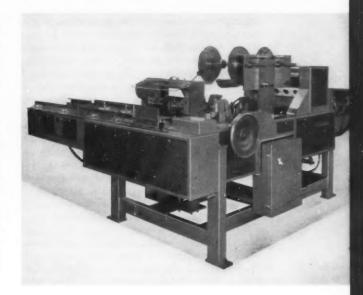


Medium-speed bundler offers operating economies

Basic economy and quick-change adaptability to various operations—packaging-equipment attributes which are of prime importance to packagers everywhere—are combined in Scandia's new Model 110 medium-speed automatic wrapping unit. The machine also is noteworthy for its clean, modern design and for the accessibility of integral mechanical components.

According to the supplier, the compact new machine brings the savings of film or kraft-paper bundling to low- and medium-volume producers of a wide variety of products. The low initial investment required by the bundling unit makes it particularly attractive to such packagers, the manufacturer adds. Packaged products which can be accommodated include pipe tobacco, toiletries, cosmetics, drugs and confections.

The machine can be adjusted to wrap individual packages, various multiple combinations and special-event deal packages. All mechanical adjustments, including change-over for different container sizes, reportedly can be effected rapidly. Scandia Packaging Machinery Co., North Arlington, N. J.



AT THE SHOW

Modern-design multipacker

Sleek sculptured-metal external design that fits the decor of modern packaging plants is a striking characteristic of Mead Packaging's new Cluster-Pak 333 can or bottle multipacker. The automatic machine operates at a rated speed of up to 50 six-packs per minute, depending on container size and cluster arrangement.

Other features of the new multipacking unit include location of controls away from moving parts (for safe, functional performance) and rapid change-over (conversion to handle cans or bottles is reported to take less than an hour). An exclusive attachment is a patented locking and alignment device. Bottles or cans are locked into position in the carry carton without the use of glue or staples. Optional is an inserter attachment that puts partitions between glass containers for added protection. Mead Packaging Div., The Mead Corp., 950 W. Marietta St., N.W., Atlanta 2.

For more news of new machinery to be exhibited at the PMMI Show, see Equipment & Materials, pp. 62-64 and 192-198, this issue.



- 1 Foil-laminated cartons (0.00035 foil to board), designed to keep beer cold for hours after removal from refrigeration, have been adopted by the Theo. Hamm Brewing Co. to merchandise 12 cans of Hamm's beer. The principle of reflection is given as the reason for beer being kept colder longer in these cartons than in conventional paper multipacks. Reportedly, it takes 6 min. longer for 12 cans of beer in the new pack to chill to 25 deg. F. than for six cans in a regular multipack. And the new pack keeps the beer cooler longer, the supplier says, because after cooling, the heat source is outside the pack. Such heat is in the form of radiant energy, according to the technologists, and since foil reflects radiant heat energy, it slows down absorption of heat by the foil-laminated carton. If the new pack is cooled to 331/2 deg. F. and placed outdoors in 75 deg. F. temperature, reportedly the beer would not reach 55 deg. F. for 4 hrs. "Cold Pack" carton, Reynolds Metals, Richmond.
- 2 An all-plastic container molded of polypropylene with a screw-type closure has been introduced for 5 Day Stick Deodorant, product of Five Day Laboratories, Div. of Associated Products, Inc. Push-up bottom of the container is made of polyethylene. Vertical grooves in cap and barrel provide a better gripping area. "Top-hat" linerless closure, which replaces the former lined closure, permits reclosing

- without pushing the product back down into the barrel. Polypropylene container and polyethylene push-up fitment, Owens-Illinois, Toledo. Labels, National Label Co., Philadelphia.
- 3 Opening and closing convenience is now "built in" blister packages. One of the first users is the Merrill Mfg. Corp., maker of small hardware items, which puts its Dial-Pak screw hooks and eyes in a transparent blister, mounted on a cardboard backing, that has rotating freedom for opening and closing. A 2-in. tab is perforated on top of the arc of the blister, thermoformed of tough butyrate plastic sheet. When the tab is removed, a gentle turn to the right opens the blister, a turn to the left closes it. A hole in the cardboard backing aids in self-service display. Patented blisters, Plastofilm, Inc., Wheaton, Ill. Plastic sheet extruded by Campco Div., Chicago Molded Products, Chicago, using Eastman Chemical's Tenite butyrate.
- 4 The priceless asset of the world-famous, trademarked Coca-Cola bottle is reaffirmed by the latest move of The Coca-Cola Co. Metal cans have been redesigned to carry a line-drawing reproduction of the bottle, superimposed with the trademark, "Coca-Cola." The new design appearing on the face of the cans began reaching bottlers last month, says the company's packaging committee.

PAGKAGING







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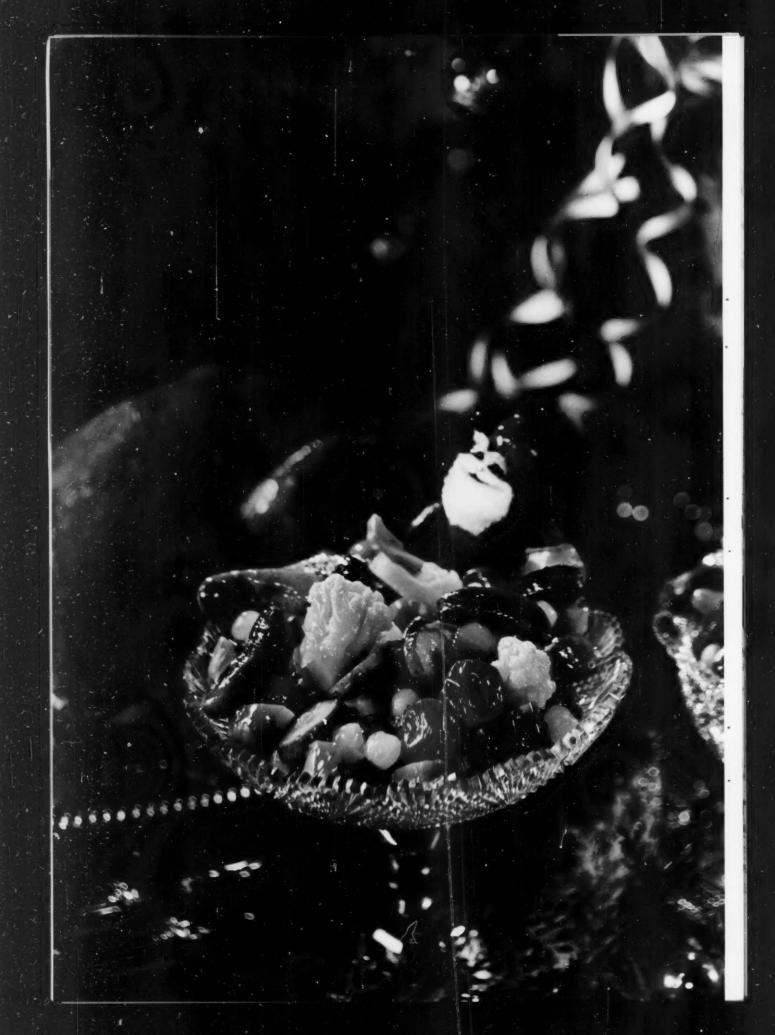
- 5 The trend to simpler, less-busy design technique is seen on new packages for Quaker Oats' cold, ready-to-eat cereals. The new design follows the pace set by the package for "Life" cereal (newest of the Quaker cereals), distinguished for impressive use of white space. The new cartons reveal a strong family pattern, yet the package for each variety, the company believes, has the necessary strength to function alone if it is separated in the creal department from the other packages in the line. Design, Dickens, Inc., Chicago. Cartons (for Puffed Wheat, Puffed Rice and Life), Michigan Carton Co., Battle Creek, Mich., and (for Muffets) Corson Mfg. Co., Lockport, N. Y.
- 6 A new package and a new design give impact to the newly developed formulas for the line of Simple Simon frozen cream pies produced by Carnation Co.'s Frozen Foods Div. Full-color-lithographed cartons have replaced the former wax-paper-over-wrap cartons. The new design, developed after extensive consumer testing and research to attain an image of product quality in a modern format, emphasizes appetite appeal with an illustration of a luscious slice of pie dominating the carton's top panel. Graphics feature a crisp, clean-cut logotype for trade and product names. The trade figure has been simplified and reduced in size. Carton, Fibreboard Paper Products Corp., San Francisco.
- 7 Iridescence on glass bottles, achieved by a special coating, gives a distinguishing effect to two new Dermetics products, Airborn Cleansing Treatment and Airborn Night Treatment. Family relationship is maintained, however, by applying the iridescent coating to the company's private-mold Grecian-column bottle. Gold-colored caps and foil labels complement the pastel blue and pink tones of the two products. Bottles, Carr-Lowrey Glass, Baltimore, Md. Iridescent processing, Ceragraphic, Inc., Hackensack, N. J. Labels, Foxon, Providence, R. I. Caps, Armstrong Cork, Lancaster, Pa.
- A merchandising edge in supermarkets is claimed by The Kroger Co. with this self-liquidating premium container for its Instant Spotlight Coffee. The promotion, conceived in mid-May, appeared in Cincinnati and Dayton Kroger outlets in July and now is stocked by more than 1,300 stores in the chain's 18-state area. The re-usable glass carafe, packed with coffee on a production basis, has an easy-to-grasp handle and high-density polyethylene closure fitted with a shrink-seal band. Carafes are shipped 1 doz. in a printed reshipper carton; after being filled, they are sealed and reshipped in the original cases. Carafe, Owens-Illinois' Kimble Glass Co., Toledo. Closure, Lumelite Corp., Pawling, N. Y., using Phillips Chemical's Marlex 5065. Cel-O-Seal band, Du Pont, Wilmington, Del.













FEAST DAYS ARE PICKLE DAYS

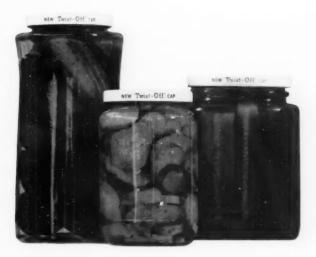
. . . and good packaging helps make them so!

This year, the Thanksgiving, Christmas, and New Year's dinner tables are going to see pickles used more prominently than ever.

That timely theme, "Holidays are Pickle Days!", is now in its sixth year of successful promotion, with the nation's pickle packers spreading the word in every possible way. The nation's retailers, having learned the great holiday sales potential of pickles, are falling in line—and cashing in—in increasing numbers.

In all this growing activity, modern pickle packaging is playing a strong part. Clean, impulse-building packages, made more convenient than ever by their modern 1/4-turn "Twist-Off" Caps, are helping mightily to stimulate the buying urge. And shoppers buy with complete confidence, because they know that these Vapor-Vacuum Seals protect the original flavor and freshness of any pickle product.

> May we suggest, once more, that no Holiday feast is complete without pickles—and that no pickle package is at its best without a Vapor-Vacuum 1/4-turn "Twist-Off" Cap.



WHITE CAP COMPANY

DIVISION OF CONTINENTAL (C) CAN COMPANY



First marketing by Cloverleaf in Chicago area indicates popularity with consumers despite an initial price handicap; volume production and use may make the package fully competitive

ENTER: throw-away plastic

Plastic containers for milk—which some dairy experts predict will replace paperboard within 10 years—are now a commercial reality and first reports indicate excellent consumer acceptance despite a premium price for the no-deposit, no-return package now being market tested.

Although at least three major ingredients in any assured success are still missing—large-volume container production, low price and high-speed filling—this initial entree of plastics into still another high-volume product field bolds even greater potential, statistically, than was evident when plastics moved into the area of liquid-soap, detergent and shampoo packaging. Current U. S. milk consumption is said to require more than 16 billion one-trip paperboard containers annually.

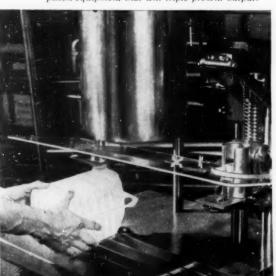
Pioneering the use of the plastic bottle is the Cloverleaf Dairy of Downers Grove, Ill., which since early August has been marketing milk in a paper-capped gallon container vacuum formed from 50-mil polystyrene sheet. The plastic-packaged gallon

of milk has been sold in one Cloverleaf store at varying prices ranging from 5 to 15 cents more than competitive containers. If the supplier can meet its volume requirements, Cloverleaf reports that it may convert its entire product line to plastic by early 1963, starting with other retail outlets and then its own delivery routes. The plastic container is offered so far only in a gallon size (which is competitive only with glass) and in a half-pint size.

Cloverleaf, a moderate-sized packager, wanted a realistic appraisal of exactly how many customers would pay how much of a premium price for the new package. Its store customers are strongly price conscious. Most are said to be large consumers of milk who are willing to travel a considerable distance to obtain even a few cents' price break despite a 15-cent deposit on glass gallon containers and the inconvenience of returning the bottles.

The high rate of acceptance so far for plastic containers even at a non-refundable premium is the more remarkable because of the container's unusual shape

Filling of pre-formed containers is done on modified hand-fed, 5-gal.-per-minute mechanical unit, soon to be replaced by modified singlepiston equipment that will triple present output.



Capping required the addition of hinged arms to grasp the circular bead of the container neck to prevent buckling. Formed in two halves, the container is heat sealed at the middle flange.



milk bottles



Pouring from vacuum-formed polystyrene gallon is facilitated by integral handle in one corner, spout in another. Printed paper cap is the only non-plastic component of new milk container.

and appearance. It is vacuum formed by the supplier in two rectangular parts from 50-mil sheets of super-high-impact, rubber-modified polystyrene. The two halves are heat sealed, forming a box-like container with a horizontal flange on all four sides which culminates in an integral carrying handle at one corner of the plastic container.

The pouring spout on the top surface is also located in one corner. The bottom surface directly beneath the pouring spout has a molded-in depression, allowing containers to be stacked in both dairy case and home refrigerator. Strength is augmented by ridges molded into all surfaces. In Cloverleaf's test program so far, only one container has been known to leak. Disposal is no problem, since the plastic burns as readily as coated paperboard.

The container was launched side by side with its glass counterpart. Only a small sign in the dairy case called attention to the "all-plastic, no-deposit, no-return" container. And the plastic gallon was initially priced 15 cents higher than the glass.

The plastic container sold at a ratio of about one to every 12 in glass. As buyers checked out, they were handed a questionnaire seeking their reaction. Many did more than simply answer "yes" or "no" to the questions. One diagrammed changes to improve the container. Another said: "We love the new plastic container and our only problem is that we have to go so far to get it.... I'm quite sure its weight alone will not only cut the cost of han-

dling, but also make the glass bottle and even the paper carton belong in the old fender class."

Although not all reaction was so glowing, a majority of respondents liked the container. The dairy expected that plastic's lighter weight (a filled plastic gallon weighs 8 lbs., 9 oz., compared with 11 lbs., 10 oz. for glass) would be popular. But it was unprepared for some of the other comments such as "plastic is cleaner" and "the milk seems creamier in plastic." The only strong consumer criticism of the plastic package was price. Some wanted a screw cap instead of the standard paper milk cap which Cloverleaf u.es; a few found the plastic container "awkward to pour." Cloverleaf has attempted to remedy this by tying a tag to the container neck which sketches stacking instructions on one side and pouring instructions on the other.

After 10 selling days, Cloverleaf dropped the premium to 10 cents. Complicating the sales picture was a new supermarket across the street which was offering milk at sharply reduced prices. Cloverleaf plastic sales remained steady. For every "price" buyer who switched back to glass, the dairy appeared to add a new customer for the plastic container. New faces began to appear in the store. Many commented that they had been drawn by the plastic container mentioned to them by friends.

After 12 more selling days, Cloverleaf again reduced the premium—to only 5 cents more than glass. Sales immediately boomed (on several oc-



Carrying requires only one hand. Filled plastic gallon container weighs 8 lbs., 9 oz., compared with 11 lbs., 10 oz. for glass.



Directions for pouring appear on tag added to neck of container. Reverse side of tag gives stacking instructions to take advantage of recess molded into one corner of container, into which fits the neck of the container below. Paper cap bears the only brand identification on the otherwise undecorated package.



Promoting new container at Cloverleaf Dairy's own retail store was restricted to only one small sign in dairy cabinet, where the plastic container competes with glass and paperboard.

casions the day's supply of plastic-packaged milk sold out early in the day) and the upward spiral of its sales has not yet leveled off.

From its research, Cloverleaf has concluded that about 3% of its retail customers would continue to buy plastic rather than glass even at the 15-cent premium. About 10% would pay 10 cents more and about 30% would pay a nickel extra. The dairy believes at least 80% would prefer the plastic gallon if it could be offered at the same price as glass.

Cloverleaf is now filling the plastic container on hand-fed equipment at the rate of 5 gal. per minute. This low-cost, standard-machine's filling nozzle, conveyor track and capper attachment were modified slightly by the container supplier. Buckling under capping pressure has been avoided by the use of a molded-in bead encircling the container neck. Hinged arms added to the capper grip the bead during capping so that no downward pressure is placed on the vertical surface of the neck.

The next stage in machine development, due shortly, will be a modified single-piston machine with an output of 15 gal. or 30 half-pints per minute. The container supplier says it will also offer a de-nester and sealer attachment to be added to the beginning of the filling line and an automatic caser attachment for the end of the line for complete automation in medium-sized dairies. The sealer attachment will allow dairies to buy nested halves rather than finished containers and to seal the packages themselves as needed. This will cut both container cost and package-inventory space requirements.

For large dairies, the next machine-probably

as much as two years away—is being planned to include a container vacuum former. Operating from pre-cut blanks, the machine is expected to form, fill, seal and case at a rate of 40 to 60 gal. per minute. While smaller dairies will probably stick to unprinted containers—identifying the contents simply with printed caps—the containers could be molded from colored sheet or could be flexographically printed in several colors if desired.

Cloverleaf is now paying just a little more than 10 cents for each pre-formed plastic gallon. Exact cost comparisons are difficult because paperboard cartons are not available in gallon size and Cloverleaf has no data on per-trip costs for glass gallons. However, 7 cents is believed to be a fairly accurate estimate of the cost for glass, an amount that is divided about equally between processing expense and per-trip share of the original bottle cost.

The single-piston machine, with sealer attachment, is expected to reduce Cloverleaf's unit cost for the plastic gallon container to 8 or 9 cents. If and when a complete switch to plastic takes place, Cloverleaf would be able to cut packaging labor about 40% by dispensing with bottle washing. Space freed by the elimination of this operation would also ease its crowded plant. Elimination of bottle return would result in improving the operating efficiency of its route men and give Cloverleaf an entree into large supermarkets which dislike glass-bottled milk because of the return problem.

Because of its widespread popularity, a ½-gal. container will be the next size offered, the supplier says. All of the filling machines are designed to handle all container sizes ranging from half pints to gallons. The projected in-plant vacuum former will be capable of molding most of the other thermoplastic materials as well as polystyrene.

The midwestern experiment is being closely watched by milk producers throughout the country,

SUPPLIES AND SERVICES: Polystyrene milk container supplied by Albert Mojonnier, Inc., Franklin Park, Ill., using rubber-modified super-high-impact polystyrene by Monsanto and Union Carbide. Modified Model C hand-fed mechanical filler by Mojonnier.

In England: a molded polystyrene bottle for frozen cream

S earching for an unusual container with extra merchandising appeal for its premium-priced, quickfrozen Devonshire cream, an English dairy has adopted a miniature milk bottle molded from polystyrene and closed with an airtight foil lid.

Marketed as a non-returnable container by Young's, Newton Abbot, Devon, the tiny 4-oz. plastic bottle has significantly boosted sales through frozen-food outlets, according to the company.

The opaque, cream-colored bottle is injection molded in two pieces from medium-impact polystyrene. The base is joined to the body with an adhesive composed of polystyrene in a solvent. The tight closure is achieved with the aid of a groove molded in the bottle finish that contains a flowed-in rubber composition gasket.

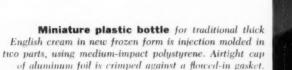
On the closing machine—a semi-automatic mandrel-type device—the conventional aluminum foil lid is first crimped against the gasket to form a seal that is said to be both airtight and watertight, and then it is also curled under the lip of the plastic bottle to form a tamperproof closure.

While the plastic container costs about 3 cents

in England and is said to be more expensive than a comparable returnable glass bottle, it has reduced breakage and the sales success more than offsets the added price, according to Young's.

Surface design on the container is limited to simple brand and product identification, applied in blue by lithography. The gold-colored foil lid has company and product identity printed in blue.

SUPPLIES AND SERVICES: Polystyrene bottles by Pioneer Plastic Containers, Ltd., Great South-West Rd., Feltham, Middlesex, England.







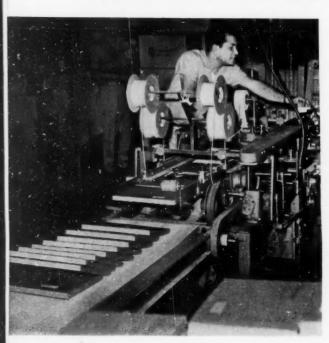
Integrated for economy

Integration of multiple mechanical operations into a single automatic machine is one of the dominant packaging-line trends of the day. Modification of a piece of equipment so that it will perform a packaging job that normally requires two or more units can mean significant savings in initial investment expenses, reduced maintenance and down time, and more economical use of valuable plant floor space.

A packager which is enjoying the benefits of such mechanical integration is Clairol, Inc., New York manufacturer of cosmetic products. The company reports upgraded packaging-line efficiency and substantial savings in over-all labor and equipment costs since adoption of an automatic bottle-cartoning unit equipped with three attachments—a sheet-fed leaflet folder and feeder, a pre-folded-leaflet feed insert and a quick-change rotary imprinter—that enable the basic unit to perform bottle cartoning, leaflet inserting and data imprinting in a smooth and rapid operation. The attachments are synchronized to the speed of the cartoning machine, which turns out 200 completed packages per minute, says Clairol. CMC-300 constant-motion cartoner and attachments by R. A. Jones & Co., Covington, Ky.

COST CUTTERS

Speedy 'half-size' cartoner saves 10% in over-all costs



Development of a cartoning machine that operates 30% faster than its predecessor, in 50% less floor space and at a 10% saving in materials and labor costs, is news that should interest many packagers. Such a machine has been built by H. Wolff Book Co., New York (in cooperation with its adhesive-equipment supplier) to speed the mailer cartoning of American Heritage Publishing Co.'s publications. According to Wolff, the unit operates at 70 cartons per minute, compared with 53 per minute for the machine it replaces.

Key to the equipment's improved performance, says the packager, is its adhesive system: fast-setting cord-like thermoplastic adhesive and twin hot-melt applicators. Used to seal carton flaps, the adhesive eliminates the conventional glue pot. It needs no warm-up time and sets rapidly after compression by the applicators. Only enough adhesive is melted to supply immediate needs, thus cutting material costs, says Wolff. Because of the thermoplastic adhesive's fast set, machine length is only 15 ft., compared with 30 ft. for the previous unit with a standard glue system. Thermogrip cord adhesive and hot-melt applicating attachments by United Shoe Machinery Corp., 140 Federal St., Boston 7.

Filling-line automation doubles production for less

A compact new machine that automates a formerly manual packaging-line operation has doubled the production speed of cosmetic creams and liquids in polyethylene containers, reports Helena Rubinstein, Inc., New York. The cost-cutting unit is a restriction-plug inserter, installed in line between the filling and capping stations. Use of a restriction plug is necessary in order to adapt the plastic container's mouth to dispense a fine flow of product. Plug insertion formerly was done completely by hand and was an unavoidably slow and costly procedure that limited packaging-line speed to 50 bottles per minute, the company points out.

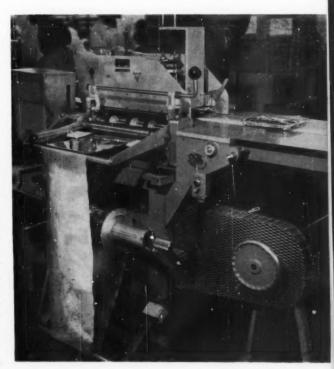
In Helena Rubinstein's new 100-per-minute automatic operation, polyethylene restriction plugs are fed down a chute singly to a restraining arm that holds the plug in upright position. When a filled bottle passes beneath the arm, pressure of contact picks a restriction plug from the chute and seats it part way into the mouth of the plastic container. An overhead moving pressure belt tamps the plug firmly into place as the bottle travels toward the capping station. Model PB automatic restriction-plug inserter by Resina Automatic Machinery Co., 572 Smith St., Brooklyn 31.



Automatic lidder pares costs

A 100% increase in production speed (to 60 packages per minute), sharply improved container performance and a big reduction in packaging-labor costs are reported by Ocoma Foods Co., Omaha, since installation of an automatic machine that cuts aluminum-foil covers from roll stock and crimps them to semi-rigid foil frozen-food trays. Since lidding was formerly a manual chore, the new unit has freed five workers from the line for other duties, the packager says.

In Ocoma's plant, filled trays are conveyed into the elevator well of the lidding machine. A 10-mil foil cover, automatically cut from roll-fed vinyl-coated stock, is placed over the elevator well. As the tray rises, it picks up the cover and moves on to a specially designed crimping head which affixes the lid to the tray preparatory to cartoning. According to the packager, the positive crimp which is achieved on machine eliminates container failure which occasionally occurred when the job was done by hand. Machine change-over to different-size trays is said to take about an hour. Reycon Tuckwrap foil-lidding machine by Reynolds Metals Co., Richmond 18, Va., and Hayssen Mfg. Co., Sheboygan, Wis. Foil trays and roll-fed coated-foil sheet by Reynolds Metals.



High-fashion

approach

Glamorous new packages
inspire women to knit;
they're part of a
redesign program that's helped
David Traum Co. win top place
in the \$50-million
art-needlecraft field

Big full-color photos, realistically reproduced on set-up box wraps, bring new excitement to art-needlework counters. Triangular transparent window area displays yarn and fabric coordinates. Illustrations depict three different sweater styles that may be made with the kit. Side-panel color chart shows selection of coordinates carried.



Dramatic new packages with big, full-color illustrations that look like fashion-magazine covers are appearing on art-needlework counters around the country. The motivating strategy behind them offers some valuable new suggestions for packagers of all kinds of do-it-yourself products. And the economies realized in their planning will be of interest in dozens of other product fields.

The packages are part of an over-all redesign program undertaken by the David Traum Co., New York, in all of its three divisions: knitting yarns (Columbia-Minerva Corp.), art needlework (Heirloom Needlework Guild, Inc.) and a line of notions that are sold under the Traum name.

Within months these packages are credited with having more than doubled sales on certain items and winning for the David Traum Co. the position of undisputed leader in the estimated \$50 million a year volume of the art-needlework field.

Continued market growth in this industry, obviously, depends on how many more women each year can be inspired to knit and sew. For years the promotion has been done largely by publishing glamorous instruction books and displaying finished samples of the garments at the point of sale. Only recently has serious attention been given to the potentials of packaging to build up this interest. Aware of the possibilities, David Traum, a little over a year

ago, appointed Alan Berger, a former independent designer, as its packaging director—the first time that this company has created a position for a packaging professional as a permanent staff member.

The challenge was to develop packages with doit-yourself appeal, adopting powerful new color techniques for interest at the point of sale.

Most impressive phase of the program is the line of redesigned Columbia-Minerva kit packages containing yarns to knit sweaters, infants' items, mittens, afghans, etc. The idea of packaged put-ups of just enough yarn to knit a specific garment was not new—but little attempt had been made previously to make the packages do the selling job. Mostly packages were of polyethylene film with black-and-white-printed inserts to identify the garment that was to be made and to contain the knitting instructions. The principal function of the package was unitizing to provide retailing convenience.

Infants' items

The repackaging of Columbia-Minerva infants' items—sweaters, bonnets, booties, carriage blankets, etc.—was tackled first. Previously these had been film wrapped over paperboard trays with drab black-and-white inserts illustrating garments to be made with contents. The upgraded new package is a two-color-printed telescoping set-up box with diecut transparent acetate window to distinguish yarn colors, but with a pleasing drawing of a baby to emphasize the use of the contents. Cost of the telescoping window box, reportedly, is almost entirely offset by eliminating the cost of the material and labor of applying the former film wrap.

Similar improvements were achieved in repackaging for gift appeal the company's "Lucky Pup-



Bid for young knitters is promotional appeal of Teen Casuals packages—transparent knitting bags with full-color inserts of garments that can be made with contents. The company calls them "the record-album approach." Packaging economies are achieved by using vinyl film for clarity on front panel and making rest of the bag of polyethylene.

pet" kits containing yarn to knit children's mittens which, when finished, become amusing animal puppets. Former banded and overwrapped trays have given way to set-up boxes with colorful box wraps that illustrate with two-color artwork the items to be made with contents. Here again, higher cost of the boxes is offset by eliminating the film overwrap and by less labor needed to fill set-up boxes.

Sweaters and coordinates

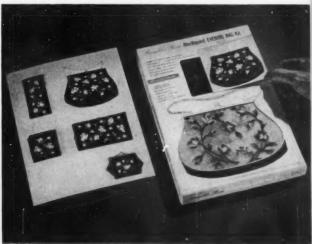
Encouraged by enthusiastic retail acceptance of the infants' and "Lucky Puppet" packages, the company was ready to see what could be done to develop faster-selling packages for its sweater kits.

One of the first moves was to convert the film packages for sweaters into re-usable knitting bags

Baby illustration on set-up window-box cover replaces drab black-and-white illustrations on insert of former filmwrapped tray used for infants' items. Gift appeal of the new packages on display has doubled sales in some markets.

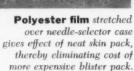


Full-color labels applied to set-up boxes for artneedlework accessories line give color-process effect without cost of expensive box-wrap printing. Impressive economies are effected by ganging up label printing on the same sheet.



NEW TRICKS IN CARDING







Integral die-cut flaps in card folded over two edges of hinged-lidded bobbin box hold box securely to card when transparent lid is closed.

by making them of heavy-gauge polyethylene with colorful stitched-edge tape bindings and carrying handles. About this time a new promotional idea took hold—the merchandising of knitting yarn for a sweater, color coordinated with a length of fabric to make a matching skirt. Columbia-Minerva packaged these together as a kit, like its sweater kits, in the knitting bags with a full-color-printed paper insert showing through, illustrating the garments and instructions for making them. The pack-

Set-up boxes with improved artwork for Lucky Puppet mittens replace former film-wrapped units with wrap-around bands. They give better display and cost no more, since ease of filling offsets the material and handling cost of the former wrap.



aging enjoyed good consumer acceptance, but the company was not yet entirely satisfied.

Future markets, it knew, depended on getting more young knitters. Styling of the items, therefore, was directed toward more high fashion that would appeal to teenagers. The high-fashion appeal was translated into full-color fashion illustrations printed on the inserts to show through the transparent knitting-bag packages. Columbia-Minerva calls it "the record-album approach." Retailers immediately began displaying the colorful packages, which provided not only recall at the point of sale, tying in with similar full-color magazine ads, but a new interest to stop the shopper. Sales picked up markedly and a further package refinement was made.

It was decided that the face of the knitting bags, which the company makes in its own plant of polyethylene, demanded a film with more clarity to show up the colorful printed inserts. Vinyl was the alternative, but an all-vinyl bag would have added considerably to costs. The problem was solved at little extra expense, according to the company, by making only the front panel of the stitched bags of vinyl.

This package put-up was tried also for the sweater-and-skirt coordinates, but after one season it was decided that the knitting-bag package still did not show off the yarn and skirt material to best advantage. Also, for products selling in a \$16 to \$19 price range, the package did not emphasize adequately the quality and value.

For the coordinates, therefore, the knitting-bag approach was bypassed for a handsome set-up telescoping window box with a triangular open area to display the actual textile fabric and the knitting yarn. Big full-color fashion illustrations of the finished garments on glamorous models were printed on the box wraps. Actually the window box with its full-color-printed magazine-cover tight wrap can be produced for little more than the re-use knitting-bag package, the company says, due to savings in materials and labor. Side-panel printing provides a complete color chart of the coordinated colors in the line. This improved display packaging is credited with sales far above expectations.

Art needlework

Among the many art-needlework items of the Heirloom Needlework Guild is a line of kits to make needlepoint accessories—purses, vanity cases, eyeglass cases, etc. Colorful package graphics to encourage purchase are most important, but full-color box wraps for these packages, which have limited volume, would have been costly. In this case, the designer has devised a way of printing all box wraps in just two colors, but gets full-color effects on the boxes by means of affixing [Continued on page 239]



"Knox Glass meets every basic requirement," says president of major eastern bottling firm

"Bottles supplied by the local producer of Knox Glass products meet every basic requirement we demand in glass bottles," says the president of one of the east coast's most important bottlers of cola and other soft drinks.*

"This is dramatically evidenced," he said, "by the fact that Knox Glass accounts for a substantial portion of our bottle requirements—both in our nationally advertised product, and our company's own brand of carbonated beverages.

"We're particular about bottle quality. The glass must be absolutely clear, free of imperfections and defects. We demand that the ACL be top quality with perfect alignment and without ink runs and stains. But, perhaps even more important, the bottle must be exactly the right size and it must be strong—particularly at the locking ring of the neck where the caps are applied.

"Knox, as I said, meets all of our requirements excellently"

Find out how Knox Glass can meet your requirements—excellently. Contact any one of 37 sales offices, or Knox Glass, Inc., Knox, Pennsylvania.

*Name available on request.

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To Detroit for the fourth Machinery Show

In dramatic new Cobo Hall Nov. 7-10,

PMMI's biggest exhibition will

display the machines, materials and

services of 214 companies.

An innovation this year is a two-day

conference-workshop on maintenance

For your personal use, Modern Packaging has prepared a complete guide to the PMMI Packaging Machinery Show and concurrent conference-workshop. In this convenient program, inserted under the front cover of this issue, are an alphabetical and numbered list of show exhibitors (with an easy method of checking off those you wish to visit), a floor plan identifying booth locations by numbers, a detailed conference-workshop program, a show schedule and a downtown-Detroit map showing Cobo Hall in relation to hotels. This guide, folded to pocket size, can be taken to Detroit. For additional copies, visit Modern Packaging's booth (226) at the show.



ompleting this year's swing of major packaging shows to new exhibition halls, the fourth biennial Packaging Machinery Show this month will introduce its expected 17,000 visitors to Detroit's year-old Cobo Hall, set on the river front in the heart of the city. Not only is this 10-acre structure larger in some respects than either New York City's Coliseum or Chicago's new McCormick Place, to which the American Management Assn. moved its annual National Packaging Exposition last April, but this year's Packaging Machinery Show will top in size its three predecessors, all sponsored by the Packaging Machinery Manufacturers Institute.



In 28 hrs. of exhibit time during four days from Tuesday, Nov. 7, through Friday, Nov. 10, visitors will enjoy a one-stop shopping tour of the latest in highly engineered packaging machinery and related packaging materials displayed by 214 companies in one huge room almost completely unobstructed by supporting columns. The show will be open from 10 a.m. to 6 p.m. on each of the first three days and from 10 a.m. to 2 p.m. on Friday, the final day of the event.

Also attracting machinery-minded packagers will be an innovation at Packaging Machinery Shows, a two-day "workshop-conference" in the same building. The subject is planned maintenance. Conference-workshop sessions will run until noon on the second and third show days (Wednesday and Thursday). The \$2 registration fee to be charged for the

show will admit visitors to all conference sessions.

The show's growth and increasing appeal for both exhibitors and visitors can be gauged by the fact that at its 1956 debut in Cleveland there were only 143 participating companies occupying 43,000 sq. ft. of space and attracting 8,000 visitors. Two years later in Atlantic City, 147 exhibitors using 56,000 sq. ft. of space drew 11,000 visitors. In 1959, when the show started its present odd-year biennial schedule of fall dates, 155 exhibitors in New York's Coliseum occupied 64,000 sq. ft. and attracted 20,000 visitors. This year's one-third increase in exhibitors and better than 50% increase in space (to approximately 100,000 sq. ft.) also indicates a sizable gain in the average display area that will be used by participating companies.

PMMI, a 28-year-old association of 80 packaging-

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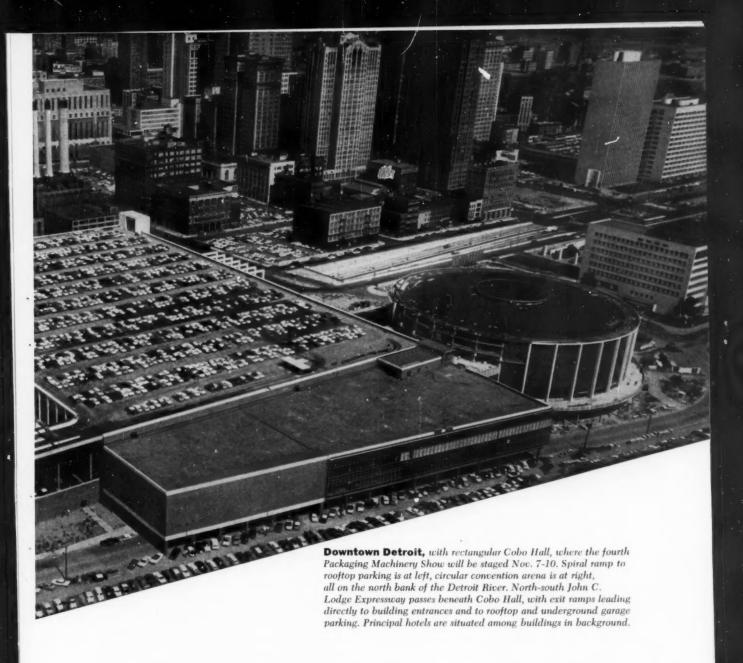
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PACKAGING MACHINERY SHOW EXECUTIVES



K. B. Hollidge Arthur Colton Co. PMMI president



W. W. Anthony, Jr. Crompton & Knowles Show chairman



Richard Wellbrock New Jersey Machine Corp. Conference chairman



K. M. Peterson Pneumatic Scale Corp. Conference co-chairman

machinery manufacturers, will stage its show in one half of Cobo Hall's main exhibit area, on what is technically the second floor. The entrance to the show is off lower Washington Blvd. at Jefferson Ave. At this point, the hall is at ground level, since the land slopes down toward the river.

Roof-top parking, accommodates 1,150 cars. An underground garage can handle 600 cars and adjacent areas will park thousands more. City expressways lead directly to main entrances of the building.

In this striking and versatile new building in the heart of an area noted for mass production and industrial know-how, production-minded packagers will find "products in action" as exhibitors display equipment and supplies new or improved since the last shows. In booths staffed by management, engineering, maintenance and sales personnel, many machines will be operating during show hours. A show committee headed by W. W. Anthony, Jr., executive vice president of Crompton & Knowles Packaging Corp., Bellwood, Ill., has restricted participation to selected producers of packaging machinery, related materials and services, and has continued the \$2 registration fee that is designed to insure a properly screened audience.

Other show committee members are PMMI's president, Kenneth B. Hollidge, executive vice president, Arthur Colton Co., Detroit; W. J. Rothfuss, general manager, Cryovac Co.'s Equipment Div., Woburn, Mass.; Richard Wellbrock, vice presidentsales, New Jersey Machine Corp., Hoboken; K. M. Peterson, advertising manager, Pneumatic Scale Corp., Ltd., Quincy, Mass..; A. R. Stevens, vice president, Elgin Mfg. Co., Elgin, Ill., and Russell L. Sears, PMMI's executive director.

Mr. Wellbrock is also chairman and Mr. Peterson co-chairman of the conference-workshop. The theme is "Planned Maintenance: The Profit Tool of Modern Management." The conference on Wednesday, Nov. 8, will hear Edward W. Brennglass, president, Packaging Corp. of America, on "Preventive Maintenance Pays!"; G. Douglas Reed, vice president-manufacturing, McCormick & Co., Balti-

more, on "Do the Machinery Folks Understand?"; Louis J. Rouleau, field service representative, Economic Machinery Co., Worcester, Mass., on "As the Machine Man Sees It"; H. Russell Beatty, president, Wentworth Institute, Boston, on "What the Technical Institute Offers," and Cornelius Wandmacher, dean of the College of Engineering at the University of Cincinnati, on the subject of "The Role of the Engineering College."

The workshop program on Thursday, Nov. 9, will hear Walter Jacquemin, product engineer, Pillsbury Co., Hamilton, O., on "Communications"; Norman Yaeger, central engineering, Colgate-Palmolive Co., New York, on "Maintenance Features in Machinery"; John S. Stokes, installation and service manager, FMC Corp.'s Stokes & Smith Plant, Philadelphia, on "Adjusting the Material, Not the Machine," and Glenn R. Engel, Jr., field sales manager, equipment division, W. R. Grace & Co.'s Cryovac Div., Woburn, Mass., on "A Packaged Plan for Effective Machinery Maintenance."

Show management is Shea Expositions Corp., 1 Gateway Center, Pittsburgh 22. Hotel reservations may be requested direct to hotels or through the PMMI Housing Bureau, 626 Book Bldg., Detroit 26.

Following, listed alphabetically, are details of displays from all exhibitors who answered Modern Packaging's questionnaire before the deadline. A complete list of exhibitors up to press time appears in Modern Packaging's Show & Conference Guide, inserted under the front cover of this issue.

A-B-C PACKAGING MACHINE CORP. Booth 445. Automatic Dialmizer case sealer on display. Personnel: J. L. Neal, G. E. Miller, W. M. Haynes, R. W. Stevens, W. E. Cranor. Hotel: Statler Hilton.

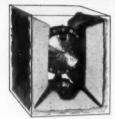
ALGENE MARKING EQUIPMENT CO. Booth 237. Exhibit of flat box printer which prints all four sides of a full range of cartons in one pass with automatic hopper-feed operation that will accommodate up to 4,200 cartons per hour; four-way printer that will produce and/or code imprint all four sides of a full range of set-up cartons in the production line in one pass of the machine. Personnel: M. Mann, M. Amin.

[Continued on page 242]

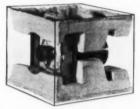
Want to cut package costs?
Want to cut packaging labor costs?
Want to cut BOTH?

SWITCH TO TEKMOLD





Novelty calendar shows TEKMOLD ability to engineer enclosures for fragile objects of unusual shape.



Precision timer "floats" safely between TEKMOLD protective forms.



Radio in low-cost TEKMOLD for utmost shipping safety.

Protective Packaging that "floats" your products safely

Protection is the first reason for packaging your products in TEKMOLD, the custom-molded cellulose forms that provide a truly protective cushion.

When you can get major savings, too, you've really hit the jackpot.

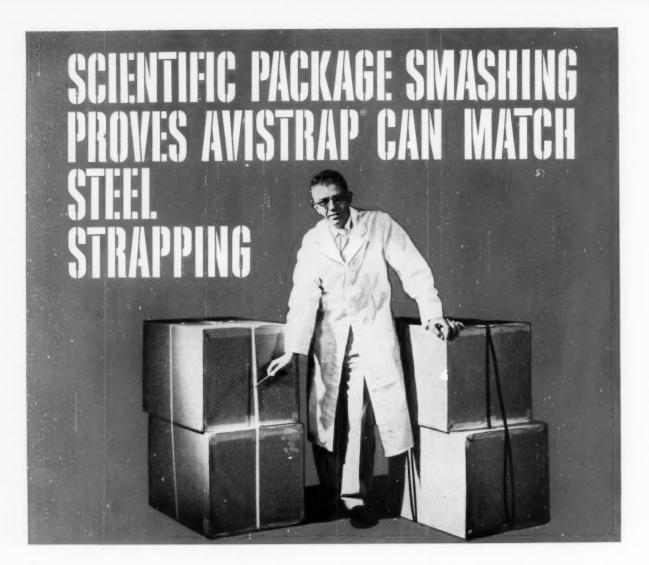
Radio manufacturers, for example, report package savings up to 9 cents per unit on table models, and labor savings up to 3 cents per unit, after switching to TEKMOLD from multiple-piece, die-cut corrugated assemblies that must be laboriously hand-assembled. And those savings are typical.

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Container Laboratories, Inc., New York, recognized expert in package research, reports Avistrap® Cord Strapping can match or better the performance of steel strapping in comparable applications. Behind this statement is a carefully-observed series of independent tests, comparing performance of Avistrap in ¾ in. and ⅓ in. widths with performance of .015 steel strapping in the same widths, in package reinforcement, bundling, and pailetizing. A comparison in terms of tensile strength, elongation, and energy required to break was also made. This showed Avistrap's amazing ability to keep on absorbing energy without breaking, long after comparable steel strapping has failed. Container Laboratories, Inc.

designed the tests to duplicate actual shipping situations. Packages were dropped on corners and edges, subjected to an incline impact test, and vibrated for hours with a force equal to their own weight. The test program was carried out without any guidance or instructions from American Viscose Corporation.



A summary of test results, as approved by Container Laboratories, Inc., is available on request. Write to Dept. M. Ask for "Evaluation Booklet."

AVISTRAP CORD STRAPPING



"Patents pending

AMERICAN VISCOSE CORPORATION, INDUSTRIAL PACKAGING DEPT. M, 1617 PENNSYLVANIA BLVD., PHILA. 3, PA. District Offices: Atlanta, Ga. • Boston, Mass. • Charlotte, N. C. • Chicago, III. • Columbus, Ohio • Dallas, Tex. • Los Angeles, Calif. • New Orleans, La. • New York, N. Y.

How to specify packaging machinery

Increased performance and lower cost are tangible benefits achieved by close control of machine design and construction.

P&G engineers explain the system and the need for industry-wide standards.

By Robert J. Kelsey*

Packagers and their machinery suppliers generally agree that a proved, workable system of specifications is the purchaser's best assurance that the machinery he buys will fit specific production-line requirements and deliver trouble-free performance.

Few packaging companies, however—even the largest—have been able to achieve such specifications. One that has, and one that is widely regarded as a model in this area of package engineering, is Procter & Gamble, a very large company with a range of different types of products including soaps, chemicals, foods and toiletries.

The full story of Procter & Gamble's packagingmachinery standards and specifications is revealed here for the first time. The principles can profitably be applied by every packager, large or small, to every purchase of equipment. Stated in simplest terms, P&G's system gives suppliers exact information as to what machines and what services they are to furnish and how these machines are expected to run once they are in operation.

These specifications are worked out in varying degrees of detail, using procedures and time-saving devices that have materially reduced the cost of this company's packaging machinery and raised the efficiency of its equipment to well above 90%. The system has been followed and perfected by the central electrical and engineering departments over the past 16-year period.

Careful preparation in machine design is absolutely essential today, because of the growing com-

plexity of both mechanical and electrical systems, demanding close communication between packager and vendor. P&G believes that standards, which are presently lacking for most packaging-machinery components (and discussed later in this article), are one phase of communication. Specifications are the other essential. But, to be useful, according to Procter & Gamble engineers, all specifications must be complete, accurate and should:

1. Convey and define to the vendor in writing all of the purchaser's basic requirements and any special needs that may be occasioned by unusual conditions of safety, sanitation, explosion, dust and cleaning that may exist in the area.

2. Provide the vendor with complete mechanical and electrical information to eliminate any possible need for guessing, interpretation or assumption on the part of the vendor.

3. Define the acceptability of designs, components and systems that are "standard" with the vendor and set forth in detail any acceptable substitutions or deviations from standard.

4. Establish a basis for equipment inspection, testing, acceptance and subsequent handling for both the vendor and the purchaser.

5. Provide legal protection for both vendor and purchaser and define the responsibility of both parties where joint design ventures are involved.

6. Serve as a permanent record of machine construction for the purpose of re-ordering.

7. Assure uniform dissemination of information to such other company departments concerned as

^{*}Engineering Editor, Modern Packacing.

production engineering, project engineering, purchasing and expediting, the field construction engineering staff and plant maintenance personnel.

How specifications are written

To achieve all of these aims, a uniform procedure is followed at Procter & Gamble in the preparation of specifications for every piece of packaging equipment purchased by the company.

First, preliminary specifications are drawn up by either the mechanical or electrical engineering department, with responsibility generally assigned to the department having the greatest amount of work in the specification. For such equipment as case packers or liquid fillers, the mechanical engineering group handles the project. Complex electronic packaging machines come under the jurisdic-

tion of electrical engineers. In either case, approval of the project is also obtained from the opposite engineering group on those particular phases of the equipment in which it is knowledgeable.

This tentative specification—based on the best available data—is then circulated for bids to vendors capable of providing the equipment.

Vendors are requested to supply a bid based on the equipment as specified, but are also invited to bid on their standard construction or methods where they differ from that which is specified.

Next, quotations are analyzed and a recheck is made of vendors possessing optimum designs or actual machines. From these interviews, a final specification is drawn up and a machinery supplier is then selected to build the machine.

Finally, the machine is given an operating test

Complete instructions on the construction and operation of packaging machinery are drawn up by Procter & Gamble engineers after consultation with the equipment vendor. Illustrated is the first page of a four-page specification for a liquid-detergent filler that will handle polyethylene bottles. The marginal letters and numbers refer to amendments, added to solve special problems.

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				ER 704-	-510				
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PLANT Ivorydale	704								
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(a	Supp	ly all neces	sary change par ahed to take C	rts for h	andling bottles	on a c	onveyor	specified above. Infeed and space them to the	

Main Drive:

(a-10)

The machine shall be arranged for synchronous line shaft operation. Vendor shall provide a shaft across entire front of machine, adequate support bearings, and drive sprockets. The shaft need not be guarded along its entire length. A layout will be prepared shortly by the P&G Eng. Div. showing the drive shaft size, location, and rotation.

Design Features:

The following design features shall be incorporated in the machine:

- The mounting of the starwheels on the drive shafts is to be of the class type.
- The evacuator bowl is to be furnished with a stainless steel funnel and shut-off valve.
- The knock-down rollers on the top of the filling stem assembly and the knock down cam are to be spring loaded.



Special construction, such as this requirement for positive clamps (arrow) on all star-wheel bottle feeds, is always noted in specification (see segment, left) to avoid later reconstruction and delays.

with the actual commercial product (whenever possible) and package at the manufacturing location and is then accepted for installation at a P&G plant.

When they are dealing with relatively standard equipment, Procter & Gamble's engineers frequently write a single specification for existing machinery, then add particulars of simple modifications agreed upon with the chosen vendor.

An example is the recent purchase of bottom-coding machinery for 12- and 32-oz. plastic detergent bottles. The short specification for this equipment, as originally drawn up, particularized only on the type of guards to meet P&G safety regulations (solid), lubrication system (centralized), painting (according to P&G standards) and the samples and requirements for test runs (4 hrs. without load, 2 min. with sample bottles without a jam or fault). This specification was later modified for higher production-line speeds and for new standards on the in-put and the exit conveyors.

Where special equipment must be built, a preliminary specification serves as a working form and a revision is written to achieve a complete specification that is concise and includes any significant facts determined during the design, development, manufacture and/or testing of the equipment.

In preliminary discussions, details of the mechanical and electrical systems, the materials of construction, the package and the product are thoroughly discussed. And any limitations in package handling or packaging speeds are also determined and pinned down in the final specifications.

The care taken with special machinery is exemplified by the recent purchase of a new high-speed filler for plastic bottles. In addition to customary specifications covering safety requirements and conveyor heights, company engineers also required special construction of the drive for synchronous

line operation, clamp-type mountings for star wheels and special chain drives for the machine, star wheels and in-feed worm. Particular attention was paid to fastenings and drives, because of previous poor experience with screws for attaching star wheels and with timing-belt drives for motors. This specification also contains a special addendum on the type of motors to be included.

Limitations on responsibility of the vendor are clearly defined in another project for a conveyor system to move reshippers for detergent bottles. Here, the supplier was held accountable for final design (which is carefully spelled out in the specification) and for the performance of the equipment. However, P&G assumed responsibility for altering the building, removing interfering equipment and service lines, and for installing the system.

In all of these cases, delivery of prototype and final packages and samples of product for the manufacturer's running tests were carefully timed to assist the vendor in planning his construction schedule. During construction, engineers from P&G make several trips to the vendor's plant to learn the special characteristics of the new machine and to consult with the supplier on special problems in machine design or operation that may arise during construction of the equipment.

Any changes made on a machine during this period are added to the specification to make this permanent record both complete and accurate. This is essential, because a final specification is an important part of a Design Summary Book, which comprises the total engineering record of a packaging line. In addition to specification sheets, this book contains performance curves, timing charts, vendor's operating and maintenance manuals, and a complete list of spare parts—all data being sectionalized and grouped for each machine in the

packaging line. One copy of this book is kept in the central engineering department; another is sent to the packaging plant for use by the company's operating and maintenance personnel.

Aids to specifying equipment

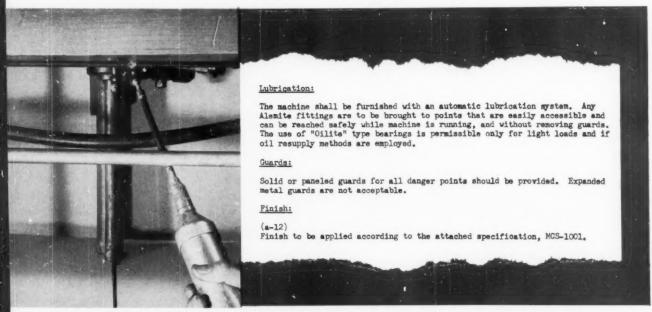
Of course, not all specifications are complicated and many require little or no negotiation with vendors, as with inexpensive code-dating equipment, which requires only a brief specification that is simply re-issued each time such equipment is purchased. Minimum time is spent in specifying slowspeed equipment for test-pack lines, too, even though this equipment may cost more than similar higher-speed machines on regular packaging lines. This is because prototype equipment is generally operated only briefly and the company believes that the engineering time needed to draw up detailed specifications should be devoted primarily to production machinery that is operated on a grinding year-in, year-out basis. It is here that careful specifications save money by reducing the capital investment in the machine and minimizing down time and maintenance in its plant operation.

But even on detailed specifications, which may run to eight pages, certain aids are used to minimize engineering labor. All P&G engineers are equipped with check lists of points to be specified. And additional general specifications for electrical components and paint finishes have been drawn up that cover most types of packaging machines.

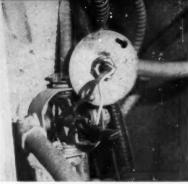
The check list has evolved not only from company experience, but also from the experiences of many other packaging-equipment engineers, since it is patterned on the "Check List of Items to be Included on Purchase Orders for Packaging Equipment" published in 1956 by the American Management Assn, and based on work by the Production Line Subcommittee of the Packaging Institute. The Procter & Gamble guide—covering every engineering facet of the product, package and machine—minimizes the chance that the engineer will overlook even a minor point in the final specifications.

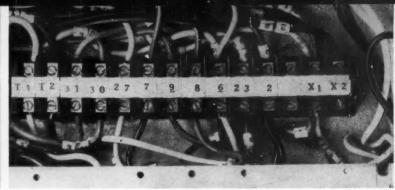
The general electrical specification details both type and installation of components, which the company has tried to standardize for all packaging machines. It covers conduit, wire and wiring methods, solenoids, starters, pushbuttons and relays, photo-electric controls and wiring drawings. Where applicable, components and wiring procedures are specified in accordance with Electrical Standards for Industrial Equipment, formulated in 1957 by the Joint Industry Conference (JIC). Motors are not specified in the electrical specification, since they vary greatly in application and availability from different machinery suppliers. They are specified for the complete machine, however.

Regardless of the care [Continued on page 158]



Lubrication fittings are covered in detail, because of their importance in preventive maintenance. An automatic lubrication system is preferred. But where isolated fittings are necessary, as in this coding device for bottoms of polyethylene detergent bottles, they must be grouped and easily accessible.





Electrical specifications, covered by a complete P&G standard, are especially drawn up to prevent jumbled and hazardous junctions (as at left) and to promote well laid out wiring boxes (right) that can be quickly checked or repaired by plant maintenance men.

Procter & Gamble's guide to the writing of specifications

Packaging Machinery Specifications—Check List

1. Machine Name & Model

Vendor's name and model Size of machine-number of stations, dimensions

2. Container or Case **Specifications**

available Net & gross weights Range of sizes to be handled-size for which machine is to be equipped Cases-furnish dimensions & weights Change parts to be furnished

Dimensions of containers—drawings if

3. Machine Capacities

Speeds required—range to be provided on unit-remember slow startups & future needs Means of speed control-individual or synchronized Location of speed control

4. Tolerances

Fillers-weight allowances, max. & average Fillers-adjustment for density change Other machines-variance in container sizes

5. Machine Drives

Variable or fixed speed, individual or synchronized Braking devices-brake motor, plugging, independent brake Clutches-type, location, type of en-

Overload protection-clutch, shear pin electrical interlocking to drive Hand operation-jogging, handwheels

6. Product Feed (Fillers)

To include feed device or hoppers Type of product-rate of feed Type feeder & connection specs-if P&G furnishes Dimension restrictions Control of feeders

7. Dust Control

heights

Enclosed drive Sealed bearing, drive, etc. Dust hoods-who furnishes, who designs, who installs Dust connections-location, size

8. Connecting Conveyors-Container Feed Specify conveyors to be furnished-

to avoid interferences

Feed heights-conveyor speeds & control Jam detection devices Timing devices-stars, flights, screws, stops Construction of conveyors-belting. chain

Specify lengths, widths, drive location

9. Miscellaneous Controls

Layout-right or left hand

Jam switches-location, type Mech. & elec. interlocks "No-container, no-action" features

10. Lubrication

Type of fittings Location of fittings-accessibility thru flexible fittings to central banks If not grease lubricated, type lubrication to employ-oil drip, mist, oneshot, splash, etc.

11. Electrical Specs

Reference to H & P Dept. specs including exception paragraph, also motor preference Who furnishes motors Wiring to terminal boxes Starters, switches to be included on unit by vendor

Specify by item switches to be furnished, operation & location Specify special controls to be furnished by vendor

Power requirements-volt, phase, cycles

12. Safety Features

Guards for pulleys, sprockets, belts, chains Type of guards Interlock features-start button locations Adherence to elec. specs.

13. Premium Feed, Couponing, Aux. Features

Item to be fed, rate, size of item Type of feed P&G dwgs., included if our deal,

14. Finish

Finish required on base machines, guides, dead plates Include copy of finish specs Thickness of plating, coats of paint Special surfacing of parts

15. Testing

Run-in tests-no. of hours-check alignment Number of containers to be run, speeds -product to be run Furnishing product Notice by vendor when ready for test

16. Technical Data With Unit

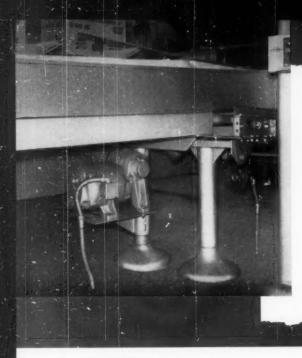
Request maint. manual, parts lists & dwgs., operating instructions, lubrication instructions & diagrams, wiring diagrams, layout dwgs. Parts book & dwgs, for eng. div. use with details Changeover instructions Copies of above required

17. Shipping Instructions

Crating, skidding Grease or other rust protectors

18. Identification

Nameplate: Mfrs.'s name, mch. name, mch. model & size, mfg. serial No. Equip. No. (P&G) if ordered for a project



Provision is to be made for the lubrication of all pulleys and bearings with easily accessible zerk type fittings located so that lubrication may be done without interrupting the use of the conveyor.

Sheet metal guards are to be provided over all chains and sprockets. Guards are to completely enclose drives, and must not require removal for lubrication.

All conveyor supports will be provided by P&G. Vendor is to submit with quotes a typical drawing showing where supports may be attached. Support methods will be as follows:

- a. Eq. Nos. 870 thru 872 are to be supported from beneath on the frame sides.
- b. Eq. Nos. 873 thru 876 are to be supported from above on the frame sides.
- c. Eq. Nos. 877 thru 880 are to be supported from beneath centered on $3^{\rm m}$ pipe columns.

The vendor shall provide sufficient and suitable support mountings for holding the work securely in place without undue vibration or deflection.

Standardization of such components as conveyor mountings and drive stands has been carried out by P&G in the absence of industry controls. Following its own rules, in one example (see segment of specification), the company tells the vendor exactly how a conveyor for Joy detergent cases is to be built.

[Continued from page 156] taken in spelling out how a machine is to be built, such work is meaningless unless electrical and mechanical components are described in a common language that engineers from both the packager and the vendor can understand, using standard terms and symbols.

Need for standards

The lack of standards is particularly troublesome to P&G's engineers in the electrical portions of engineering work. As soon as preliminary negotiations are completed, the company asks for the vendor's electrical drawings. According to P&G engineers, a review of such prints received over the past few years shows a marked variation in both clarity and usefulness—despite the fact that they believe good drawings are essential for proper installation and servicing of packaging equipment.†

Further, standard symbols for electrical components, established for other industries, are not universally used by either packagers or machinery suppliers. And while some facets of electrical design are probably beyond the scope of standards because of wide variations in user requirements and machine speeds, such basic equipment as enclosures, wiring techniques and the location of components lend themselves in particular to standardization, according to these engineers.

And standards would also accelerate acceptance of subassemblies and other complex plug-in components, which offer the surest hope of simplifying both the construction and the maintenance of modern electronic packaging equipment.

Until standards are developed for packaging machinery, P&G engineers propose that all vendors use existing JIC and/or Machine Tool Builders Assn. standards especially for drawings and wiring techniques. If the industry can be prodded into accepting these standards, they assert, a marked improvement will be achieved in equipment, which will speed acceptance of any subsequent new standards more applicable to packaging machinery.

Mechanical components are harder to standardize, though workable limits have been set on such common components as screws, bolts, bearings and V-belts and close tolerances are established for shaftings and keys. It is probably impossible to standardize variable items such as clutches and couplings, which vary greatly from manufacturer to manufacturer, according to these experts. But it would be highly desirable to establish a uniform standard for such other mechanisms as chain belts and sprockets to assure interchangeability of types.

P&G's central engineering group firmly believes that a good specification should avoid unnecessary restrictions that act merely to hamper the machinery builder. Superfluous specifications can arise through ignorance both of changes in operating conditions and of innovations in mechanical and electrical components. Such ignorance can actually raise the cost of equipment or lower its performance.

To keep themselves informed, the central engineers hold regular group meetings with plant engineers and operating per- [Continued on page 240]

[†]See "Standards for Electrical Diagrams," Modern Packaging, Oct., 1961, p. 140.

Planned preventive maintenance

A program of training and techniques that stops mechanical trouble before it starts is presented by an experienced production manager as the best way to boost efficiency and life expectancy of packaging machines.

By Douglas M. Reid,* John S. Parker; and William C. Risser**

There are many definitions of preventive maintenance, but we feel this one covers it best: "Preventive maintenance is a planned system of scheduled machine care that seeks to eliminate mechanical problems before they can cause either production loss or damage to equipment; it provides procedures that maintain machinery in the best of condition, efficiency and appearance."

Such a system is essential today in all types of manufacturing machinery generally and in packaging machinery particularly, because of the complexity of the new generation of packaging machinery with its high operating speeds. Furthermore, in a company such as ours, special problems such as short runs and frequent change-overs produce sudden and unforeseen changes in the production schedule. Thus, all packaging equipment must be as flexible as possible and must be maintained in top condition, ready to run on short notice.

There should be no difficulty in selling top management on an investment in an effective preventive maintenance program with these arguments:

- 1. High cost of most modern packaging machinery makes it necessary to prolong the useful life of existing equipment.
- 2. Repair parts can become an oppressively large item in a departmental operating budget.
 - 3. Machine breakdowns require costly relocation

*Maintenance Supervisor, †Department Head, Filling & Packaging, and *Manager, Pharmaceutical Production, Bristol Laboratories, Inc., Syracuse, N. Y.



Figure 1. Maintenance by the book is the secret of Bristol Laboratories' highly successful program. Here, Group Maintenance Leader Clifton Hinman checks the hour meter on a folder against the log book (shown close-up below) which specifies frequency of each maintenance and operation, and records it.



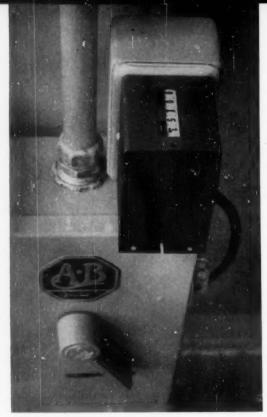


Figure 2. Hour meter on each machine signals time for periodic checks and lubrications.

of operators, the reworking of products packaged in a faulty manner and expensive labor for repairs.

 Production delays disrupt schedules, resulting in back ordering—a situation which cannot possibly be tolerated in our particular business.

Production schedules are often very complex today and do not lend themselves to changes or delays. So schedules must allow for the use of stand-by lines to permit change-overs in other lines. But, stand-by lines must, by necessity, be limited. Therefore, a breakdown resulting from poor maintenance could cause not only delivery delays, but a complete rescheduling and change-over of several lines—the most important reason why it pays to have every piece of equipment and machinery ready to do the work expected of it.

We believe that line breakdowns can usually be eliminated by "beforehand" maintenance, which costs less than emergency maintenance. And such an organized system of preventive maintenance need not require large expenditures of money.

A sound program should be planned to allow 20% of the total maintenance budget for preventive maintenance, including the special personnel needed to handle greasing, oiling, cleaning and painting. It should be emphasized, however, that we do not advocate a 20% increase in maintenance cost. Far from it. Bristol Laboratories feels that 20% of the

basic total maintenance cost should be allocated for preventive maintenance and that the resultant reductions in machine repair and down time will more than offset the funds that may be diverted from the more conventional types of maintenance.

Organization and programming

Selection of a program is governed by many factors. In our case, we vary the approach to suit the nature and type of equipment, the actual operating time, the frequency of change-over, nature of the product and even more finite considerations such as the characteristics of adhesives that are used on our packages and on our labels.

To tie the program tightly to the packaging department, we have the foreman in charge of the maintenance mechanics who service and change over filling and packaging equipment report directly to the department head in charge of filling and packaging. We have found this to be very satisfactory and much more preferable to an arrangement where the packaging mechanics are drawn from the general plant-maintenance group.

With this system, we have little difficulty performing preventive maintenance during the actual working hours, because our intermittent-line operation has some scheduled idle periods. However, there are some maintenance jobs, mostly unusual cleaning operations, which must occasionally be scheduled to take place over a week end.

Careful consideration of the nature, complexity and "true" operating time of a packaging machine is essential for an adequate preventive-maintenance system. We believe that the program for each machine may need altering from time to time as operating conditions change or as more information on operation and requirements is compiled. This maxim is of great importance to us, because of the great diversity of packaging equipment and machinery used in our operations.

Our machines handle a wide range of container types and sizes, from 7.5-cc. vials to gallon bottles. And a typical package consists of many parts: a bottle, stopper or cap, tear seal, thermoplastic label, individual carton and an insert either pre-folded on special equipment or by cartoning machine.

To handle these multiple packaging functions, we have seven major types of packaging or combination filling-and-packaging lines.

The first group consists of equipment for sterile filling, stoppering and sealing of parenteral vials of both liquids and powders. The second group is used for the filling of capsules and tablets into snap-cap vials and includes inclined-plane semi-automatic counters, automatic cottoners, automatic snap cappers and automatic machines to apply alum-

inum seals. A third group handles labeling and cartoning, and comprises semi-automatic case unloaders of our own design and construction, automatic thermoplastic labelers and either automatic or semi-automatic cartoning machines.

Two other groups consist of case unloaders, a bottle blower, piston liquid fillers or auger powder fillers and tamperproof, roll-on cappers. Two more groups of machinery are used for work on special orders or for more complex packages, using semi-automatic glue labelers and special equipment that implements hand work, performs special pre-assembly or facilitates final packing operations. All lines are designed with ample space between machines to pack off or feed the line at any point, using special conveyors and packing tables.

Method of control

With this variety of machinery, success of our preventive-maintenance program is dependent upon a simple and reliable method of control.

The simplest procedure is the placing of a record card on each machine, where it is available for the operator or mechanic to observe and record the services performed on the machine. But this method is decentralized and makes it difficult for the entire maintenance group — including supervisors — to know whether or not the maintenance work is being completed on schedule. Therefore, we discontinued this method in favor of the log-book system.

A log book is an excellent means of providing a complete record for a piece of machinery. All required servicing is listed and space provided for recording each time the service is performed. In addition, the frequency of executing each service is designated and extra space is provided to list replaced parts or to give such other helpful information as comments by mechanics and supervisors and forecasts of future mechanical problems.

The group leader who supervises mechanics is in the best position to maintain such a log. Furthermore, since he delegates work to the mechanics on the basis of log-book data, it is also simple for him to keep entries in the book up to date.

Special machine attachments and procedures also aid maintenance. An hours-of-operation meter installed on each piece of equipment provides an accurate record of the exact operating time. It is inexpensive and usually very simple to install. There is no better method of being sure of adequate servicing or to prevent overservicing. It is particularly valuable if machinery is used intermittently.

A calendar method, whereby services are carried out each week on a certain day, is suitable if the machinery to be considered has a scheduled and fixed amount of operating time each day or each week. In some cases, we combine both the hour meter and the calendar method to determine servicing periods. For example, on our tamperproof roll-on capper, the spinning heads are cleaned and lubricated before each day's run. After 20 hrs. of actual operation, as determined by the attached hour meter, all greasing points are lubricated. Gear boxes are checked for lubrication every 100 hours.

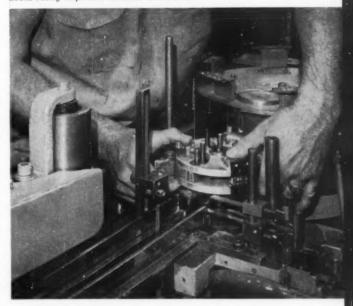
However, preventive maintenance should avoid extremes. Maintenance that is overdone soon becomes inefficient, because the people who do it lose interest. For example, the weekly inspection of a machine that actually requires inspection only once a month soon causes the worker to think that he is just wasting his time or that someone is just trying to keep him busy. For this reason, the actual line mechanics who keep the lines running are the people best suited to carry out the majority of the requirements of a preventive-maintenance program and to determine proper frequency of service.

Training, tools and facilities

Effectiveness of the whole preventive-maintenance operation depends largely on the mechanic, in the end. He must be reliable and well trained and a firm believer in the value of preventive maintenance. Records and procedures are useless if the mechanic fails in his part of the operation.

It is the duty of the maintenance foreman to check the log book and insure that the operation

Figure 3. Cleaning vacuum head on a thermoplastic labeler is a regularly scheduled operation designed to avoid costly skips and machine down time.



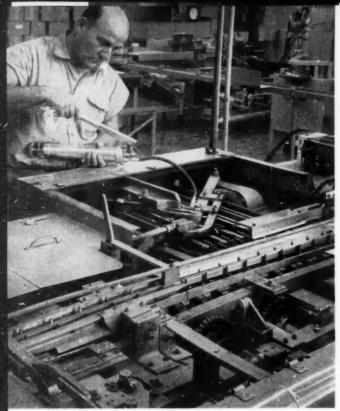


Figure 4. Lubrication is performed according to a rigid schedule, using only high-quality lubricants. As a result, Bristol has had no bearing problems in five years. Here, mechanic lubricates constant-motion cartoner.

Figure 5. Special tools as prescribed by the manufacturer are used for periodic checking and adjustment of the cartoning machine.



is kept up to date. And at Bristol Laboratories this supervisor regularly spot checks machines in order to evaluate preventive-maintenance procedures and to check the effectiveness of the program.

Before placing a preventive-maintenance system in operation, however, all of the people who are to take part in it must be trained. Perhaps even more importantly, they must be sold on the importance of preventive maintenance. Thus, training supervisors should graphically describe the goals and give careful instruction on methods. Everyone should be made aware of the necessity for using good judgment while making inspections and checks. It is relatively easy to show mechanics that good preventive maintenance makes their work more satisfactory. But this is not enough. Mechanics also need the proper tools and equipment. Such special adjuncts as cleaning solvents, vacuum cleaners, air nozzles, brushes and scrapers are just as important as the mechanic's standard tool box. And a centrally located maintenance area of suitable size and equipped with hand tools, vices, a drill press, etc. makes preventive maintenance really effective.

Universal procedures

Maintenance techniques will, of course, vary from machine to machine. But there are three basic procedures that apply to all packaging equipment: cleaning, lubrication and mechanical adjustment.

Cleaning. One of the most important maintenance procedures is the cleaning of the packaging machines. This is carried out at every opportunity, not only by the mechanics, but also by operators. Often, it is practical—or even necessary—to clean accessible parts of equipment during a run, or at break and lunch times. A thorough cleaning takes place at the end of each run, though it is advisable to clean as much as possible at the end of each day. Then, during scheduled preventive maintenance, the more inaccessible parts of the machine are thoroughly checked and cleaned of accumulations of product, packaging debris or general dirt.

An example of such simple "production insurance" is the proper examination and care of transfer heads on thermoplastic labelers. A vacuum head that is partially plugged with paper dust may cause the machine to skip labels, drop them or transfer them to the heater drum out of register. The result is down time, rework and production delay. Therefore, thorough cleaning of these vital labeling components should be regularly scheduled.

Lubrication. Oiling and greasing of packaging machines is often inadequate or is overlooked entirely. When this happens, losses are great because a binding, sluggish machine will not do the work for which it was designed. There[Continued on page 230]

Oriented cast PVC film

Process produces a high-yield, thin film of increased tensile strength without loss of desirable properties of polyvinyl chloride; controlled shrinkability is an important asset. By Aldo B. Galvanoni*

For years polyvinyl chloride film has been manufactured both in the United States and abroad by conventional methods such as calendering and casting. In 1959 oriented polyvinyl chloride film (PVC) was made commercially available from solution-cast film by Reynoids Metals Co. Since that time it has grown rapidly in the field of consumer and institutional use and in general packaging.

Why has biaxially oriented polyvinyl chloride appeared in these fields? Where and when is it used in lieu of non-oriented cast or calendered polyvinyl chloride? What are its physical properties?

The purpose of this paper is to expand on these considerations and provide an insight into oriented polyvinyl film products and their characteristics.

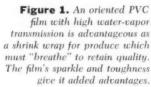
Orientation

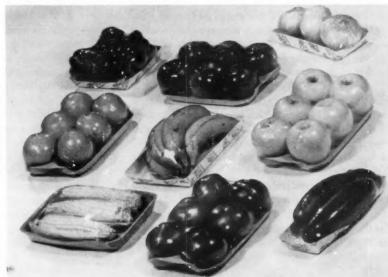
Non-oriented polyvinyl chloride films have been commonly available as both clear and colored films in gauges ranging from 1 to 2 mils up to much greater thicknesses. These films are cast, calendered or extruded. The excessive thickness of even the

lightest gauges, however, inhibits the entry of these films into such volume markets as packaging and general consumer and institutional wrapping. The primary reason for the orientation of polyvinyl chloride films, therefore, becomes apparent. It provides a practical answer to the need for a lighter-gauge material which, by the fortunate cooperation of the laws of nature, simultaneously and substantially upgrades the physical properties.

What is the orientation process which reduces the gauge of the film? Fundamentally, it is a manufacturing method whereby a film is elongated mechanically and thermally to a fraction of its original thickness, while the molecular alignment is concomitantly altered to improve materially the film's physical properties. A simple analogy is to think of a grid of random chains as representing the non-oriented molecular structure. Orientation aligns the molecules to produce straight, stronger chains.

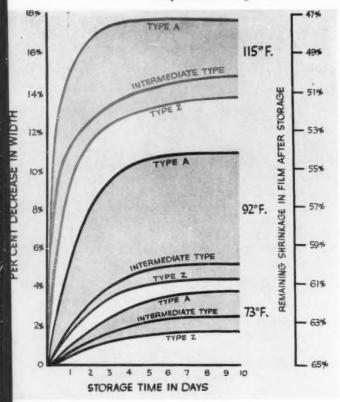
To appreciate the magnitude of this improvement, the tensile strength of a typical cast film is approximately 4,000 lbs. per square inch. The tensile strength of the same type of film oriented to ½ mil in thickness ranges from 10,000 to 16,000 p.s.i.,





^{*}Assistant General Manager, Plastics Div., Reynolds Metals Co., Richmond, Va.

FIGURE 2: Oriented PVC film: Temperature-storage effect



depending on the formulation. This substantial change is the result of interlocking molecules through thermal conditioning while the film is stretched in a controlled plastic state, both in machine and cross-web directions.

As the material is stretched in orientation, the yield (or square inches per pound) increases proportionately to the reduction in gauge. It is worthy to note that this is tantamount to stating that the specific gravity of oriented films remains the same as that of the parent non-oriented film from which it is manufactured. This stretching operation results in a thinner, stronger and less expensive film (based on area price), all of which are significant factors in a successful packaging film available in ½- and ¾-mil gauges. This is the major reason why PVC is now finding its way into applications from which its use previously had been limited both by economics and by performance.

It is obvious that as oriented films are stretched, strains are imposed. These strains are controlled in the manufacturing process within adjustable limits. With a subsequent application of heat, the film will contract as it adjusts itself to the strain condition. This heat shrinkability becomes of great significance to packaging, as it permits the manufacture of a package in relatively loose form which can then be shrunk by a brief exposure to heat to form a sparkling, skintight wrap (Figure 1).

Shrink characteristics

The orientation process locks into the film strain conditions in which the molecules are poised in readiness to restore themselves toward the original form of the cast product. A simple analogy would be a mechanical spring which has been stretched to a given position and locked in place. It obviously has the potential energy to return to its original preloaded form if it is triggered.

This is the property which gives oriented PVC film the ability to conform to the shape of an item being packaged when subjected to brief heat exposure in a tunnel. This mild heat treatment readjusts the molecular structure and permits the film to return toward the pre-stretched form through its "elastic memory."

While the controlled shrinkage takes place in approximately 5 sec. at temperatures approaching 300 deg. F., these same tendencies, on a greatly reduced scale, are also active if an oriented film should be stored for a period of time at relatively high temperatures. Figure 2 shows three formulations of polyvinyl chloride ranging from the stiffest to the limpest. Note that in approximately two weeks, temperatures above 70 deg. F. cause some permanent set in the width of the film through its tendency to return to its original form. If this ambient temperature is increased to a temperature of 115 deg. F., substantially greater reduction in film dimensions will then occur.

These adjustments of the film under higher temperature storage conditions distort the film on the rolls and, as a result, will impair its machinability in the packaging unit.

It is of great importance, therefore, that the fundamental nature of oriented films be understood by the converter and the packer. Reasonable care in maintaining such film in cool storage areas will prevent these distortions of the film and protect its original machining qualities. When these points are appreciated, the user of oriented PVC films will accept these simple precautions as readily as the photographer accepts the necessity of preventing light from striking an unexposed film.

Figure 3 shows a comparison of two oriented PVC films with competing film. Note the general similarity of these curves, but the significant differences in the amount of shrinkage at any given temperature. This factor conveys the need to know the

particular type of film being used in a package and the necessity of establishing processing specifications for temperatures and time exposure during the packaging operation.

Another interesting factor concerning bilaterally oriented film is the ability to induce strains which can be controlled equally in both the machine or cross direction, or can be made dissimilar if so desired. Figure 4 shows a film in which the shrinkage in the machine and the cross directions differs. This property is advantageous in certain specialized applications requiring a greater shrinking force in one direction. In these cases, the controlled shrinkage of the film would allow it to preserve an attractive, wrinkle-free, skintight cover.

Another important physical property which is substantially improved by orientation in comparison with the non-oriented cast or calendered film is low-temperature flexing quality. The practical aspect of this property is that packaging films can withstand shipment and rough handling in the low temperatures which are encountered under winter shipment conditions. The low-temperature flex qualities of a typical oriented PVC film are markedly improved by orientation.

As an example, a cast film which is marginal at sub-freezing temperatures will, when oriented, pass flexing tests at temperatures ranging from minus 40 to minus 60 deg. F. As the orientation process does not alter the film chemically, the results of molecular alignment are extremely significant.

Impact resistance

Toughness or resistance to impact is another important quality required in a successful packaging film. Again orientation greatly improves these characteristics over a non-oriented cast film.

To give a relative concept as to how greatly orientation adds to toughness or impact resistance, quantitative data have been accumulated by a falling-ball test method,

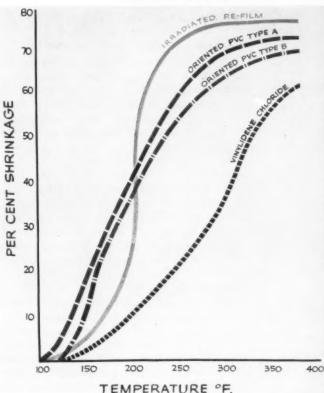
These data show that, if a given solution-cast film is bilaterally oriented through thermal-mechanical treatment with chemical composition unchanged, toughness is increased from seven to 20 times, depending upon the individual formulation of the film.

These data are based on a test in which a 1-in.diameter steel ball was dropped on the film surface. The height of the ball was increased until the film punctured, permitting the ball to drop through.

Water-vapor transmission

An important criterion in the acceptance of packaging films for many applications is the water-vapor-transmission rate. In certain applications very low water-vapor transmission is required,

FIGURE 3: Shrinkage vs. temperature,
Oriented PVC and other films



whereas in others, such as fresh-produce packages, high rates of WVT are required.

WVT rates for oriented PVC range from 3.3 gms. per 100 sq. in, in 24 hr. to 14 gms. per 100 sq. in, in 24 hrs., depending upon the formulation.

For certain applications, such as produce packaging, a method of perforating has been developed which provides small, closely spaced holes. These holes have the unique feature of a built-up rim which resists the possibility of tearing from originating at the point of perforation.

In addition to perforating the film, oriented polyvinyl chloride can also be readily printed.

Appearance

One of the qualities of PVC films which does not readily lend itself to physical measurement, but is of substantial commercial value, is its "sparkle." This is a function of the high degree of clarity and the reflective quality. The clarity of oriented PVC films is due principally to its origin in a true solution-cast form. This is an improvement over an earlier type of cast film which is a dispersion or

the suspension of solid particles in a fluid medium. In the case of dispersion films, the solid particles impart a diffused appearance to the film which detracts from its sparkle and its clarity.

Orientation of other types of PVC

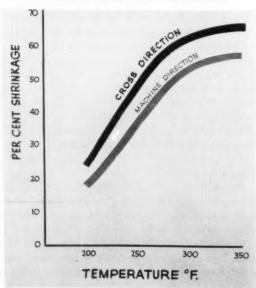
The same property of a true solution-cast film which gives it clarity and sparkle—namely, its outstanding homogeneity—is of critical value in the orientation of the film. This asset is the absence of local defects or weak spots which would make bilateral orientation with independent axis control almost an impossibility.

Experimentation has been conducted with calendered and extruded PVC films, but very limited results have been ach eved. The principal reason for this is attributable to the numerous random weak points that exist in these types of film which are nuclei for rupture in the orientation process. In brief, the orientation process has been practicable only with true-solution polyvinyl chloride films.

F&DA status

The recent passage of Federal laws controlling packaging products requires assurance that no deleterious constituents migrate to the food product. The "White List" acceptance of polyvinyl chloride is, therefore, a valued asset. The bulk of the solution-cast PVC film formulation which is subsequently oriented is pure polyvinyl chloride resin. The other major constituent is also a "White List" plasticizer made of epoxidized soybean oil.

FIGURE 4: Unbalanced orientation



The solvent used in the manufacture of these films is completely extracted in the casting process. Should even trace amounts of solvent occur, the inherent nature of the orientation process, wherein the cast film is mechanically stretched under a heat treatment in which the film is scoured on both sides by large volumes of hot air, eliminates the possibility of any solvent residue.

The result is a pure, sparkling film which is ideally suited to the packaging of food products.

Heat sealing

An important attribute of polyvinyl chloride films is their ability to be heat sealed without a coating. The range of temperatures and the duration of heat application are affected by the particular formulation of each film. In general, the more rigid types of films which incorporate less plasticizer have a wider tolerance of temperatures and time of heat application than the films produced with greater amounts of plasticizer. All types, however, can be satisfactorily sealed with available types of commercial packaging equipment.

Figure 5 illustrates the spread of the heat-seal range from the widest to the narrowest ranges of heat-sealing ability of oriented films in the PVC family. It is to be noted that even the narrow range is a distinct band which represents a practical tolerance for production equipment. For comparative purposes, Figure 5 also shows another packaging film (outside the family of oriented PVC) which is offered for commercial application. Note the critical requirements and the hazard of falling either into a melting condition or no-seal condition, should the machine be slightly off adjustment.

Chemical resistance

Polyvinyl chloride oriented film has essentially all of the desirable chemical inertness of non-oriented cast films. It has excellent resistance to alkalies, acids, gasoline, greases, oils, fungus, acid gases, iodine, bromine, chlorine household chemicals and alcohols. In general, solvents have little effect upon PVC film with the exception of cyclic ethers and ketones such as mesityl oxide, tetrahydro-furan, methylethyl ketone and cyclohexanone.

It is completely unaffected by foodstuffs such as fresh beef, pork, lamb, luncheon meats, ham, bacon. water, milk, cheese, butter, poultry and fish.

Abrasion resistance

One of the general outstanding qualities of polyvinyl chloride is its excellent abrasion resistance. For this reason an oriented polyvinyl chloride film laminated to an article such as a paperboard packing case gives lustre to the article while simulta-

neously protecting the case from staining and from the severe scuffing it receives in normal handling. One brewing company has already reported experience with the lamination of 12-oz. returnable-bottle packing cases comparing polyvinyl chloride film, a polyvinyl acetate and a polyester film. By actual shipping tests, the laminated case using oriented PVC withstood more shipping cycles, with less damage, staining or scuffing than other test cases.

The economic significance of this test lies in the fact that the oriented polyvinyl chloride film outperformed the substantially more expensive polyester. The polyvinyl-acetate-impregnated-case performance was markedly lower than that of the two laminated-film cases that were tested.

Another significant fact regarding the polyvinylchloride-laminated case is its imperviousness to water, its high resistance to abrasion, as well as its ability to withstand the effects of repeated trips through automatic washing equipment.

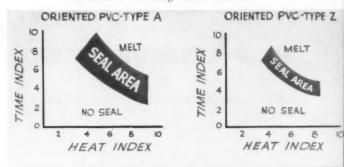
Miscellaneous physical properties

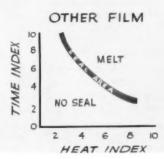
Both the formulation and the processing of oriented polyvinyl chloride film control the physical properties of the product. Factors such as "slip" or coefficient of friction between two thicknesses of the same film, stiffness (both of which relate to machining characteristics), tensile strength, tear, water-vapor transmission and gas permeability are all a function of the particular film within the polyvinyl chloride oriented-film family.

Commercially available oriented polyvinyl chloride films range widely in plasticizer content. This results in a wide range of physical characteristics and permits the selection of the specific properties required for an individual application.

Table I shows the range of physical properties indicating the maximum to minimum values of each parameter for oriented film representing extreme ends of the family of commercially available

FIGURE 5: Sealing characteristics





products. The higher values are associated with the softest (limpest) film with the exception of tensile strength, which is highest with the stiffest film.

General properties of oriented PVC films which are common to all include a complete freedom from odor, self-extinguishing flammability and indefinite shelf life under normal storage exposure. Atlas fademeter exposures of 400 hrs. show no physical change in any of the films,

One interesting development, which is not ready for commercial exploitation, is the addition of ultraviolet inhibitors in the [Continued on page 233]

Table 1: Range of miscellaneous physical properties of oriented PVC films

	Tear (gms.	WVT (gms. per 100 sq. in./ 24 hrs. at 100 deg. F.,			ission (e 24 hrs.)	cc. per	Elong- ation	Ultimate tensile strength	Slip
	mil)	95% R.H.)	O_z	N_z	CO_z	Air	(%)	(p.s.i.)	coefficient
Softest film	60	14	183	31	786	176	124	8,000	5
Stiffest film	5	3.3	20	3	140	7	50	16,000	1/2

Questions & Answers

This consultation service on both technical and engineering subjects is available at your command. Simply address your questions to the Technical Department, Modern Packaging, 770 Lexington Ave., New York 21. Your name or other identification will not appear with any published answer.

Selective gas transmission

Q: Trying out a new package recently, we enclosed fresh ground coffee in a hermetically sealed 3-mil polyethylene bag. In a very short time, we discovered that this free-breathing film had shrunk tightly to the product, forcing it into a compact lump, though its aroma and flavor remained excellent.

Can you tell us what happened to cause this problem?

A: The answer is simple, though it involves some complex technology that is actually the basis for a new method of vacuum packaging now being researched for the meat-packaging field.

Polyethylene film of 3-mil thickness and of low density (which we assume is the case) is not as "free breathing" as you imagine and, in fact, is a fairly good barrier to oxygen transmission for short-term packaging. However, the film is extremely permeable to carbon-dioxide gas, which is evolved in large quantities from freshly ground coffee. This gas passes through the film and, when no more is evolved, leaves an almost perfect vacuum inside the bag. The film does not shrink, but is merely drawn tightly against the product by the vacuum, as in skin packaging, mechanically compressing the product into the smallest possible volume.

Kept in storage for a period of short duration, the quality of the coffee would remain good. However, the volatile flavor and the odor essences also pass through the film with ease. Furthermore, if you stored these packages a little longer, the vacuum would gradually disappear as oxygen began to permeate the film—thus ending the effective shelf life for this product.

Flavor migration through bags

Q: We are revising the formulas of many of our products and at the same time are reviewing our packaging. One of our pudding powders for institutional use is in a bag inserted in a folding carton. The present bag is a white kraft paper and we find this construction gives good siftproofness, but we would like to improve the flavor-retention properties of this package, especially for our new-product formulas. Can you suggest any paper structures which would provide a more flavortight package than the kraft paper that we are now using?

A: The two packaging papers that have good general resistance to flavor migration are glassine and parchment. Apparently you also require considerable strength and so it might be advisable to laminate the glassine or parchment to a kraft base, using a resinous or resin-wax mixture as a laminant. This laminated paper can be easily made into bags and the resulting bags should have a good level of moisture proofness and, therefore, should be effective in decreasing the flavor loss of your product.

There are also certain coatings and plastic laminations that can give you flavortightness, but these would not be so easy to fabricate as the laminated-paper structure and they would also have to be carefully evaluated to be sure of their effectiveness for your particular product.

The suggested changes should be carefully tested to be sure that the new package is effective for the flavor combination of the product and also to be sure that no new problems are introduced by a change of this kind being made.

Testing heat-seal strength

Q: We use heat sealing as a method of fabricating different materials into many different kinds of packages. Our laboratory has been trying to develop standards and test methods for production control, but has found the whole subject very complex. Can you give us any references to work that has been done in this area, or any suggestions as

to how to develop test methods or control tests for measuring the heatseal strength of packages?

A: It would not be possible to outline all of the variables in the whole area of heat sealing and also there appears to be a lack of substantial references in this area. It is one thing to evaluate heat sealing as a laboratory procedure which can be done at any time after the packages are made. It is quite another matter to attempt to test seals as they come off a packaging machine, because many heat seals change drastically after a short period of aging.

There are two basic types of seals. In one, the material can be peeled apart and this is called the face-toface seal; in the other, the materials are sealed face to back and the seal is in shear. Obviously, the methods of testing these two materials must be entirely different. There is also the problem of the sealing of thermoplastic materials that are capable of making a welded seal. Depending upon the plastic and the sealing conditions, some of these materials can be made to be peelable, while under other conditions the sealing is a weld which is as strong as the material itself.

There are some military specifications that have used a dead-weight test as an index of seal strength and this can be considered a reliable index of good sealing. It is not useful, however, as a quick test for production control. Seals of a type that can be peeled can generally be tested in a standard tensile tester and this is a rapid test which gives reliable results.

It is suggested that whenever you develop production test methods which give measurements of freshly made seals that you correlate these values with tests made on similar seals which have been aged for varying lengths of time. In this way, you can be sure that the quick tests you are making are giving a reliable index of the final seal strength.



carton to support the side while printing).

Many hand cartoning operations can now be assigned to the semiautomatic IMV with attractive reductions in labor costs. Further economies can be achieved by the extra, related operations (mentioned above) that can be performed simultaneously, automatically. The new IMV is built to the high performance standards for which Jones is noted. Speeds range from 20 to 60/cpm; accommodates cartons from 1" x x " x 1x" to 4" x 2x" x 7". Special speed and size

ranges also available.

The new IMV is a "sister" machine to the production-proven CMV. See them both at the PMMI show, or write for descriptive bulletins.



R. A. Jones & Co., Inc. P. O. Box 485, Cincinnati 1, Ohio.

Plastics packaging with "built-in sell"

New polyolefins provide unique new merchandising features

Exciting low-cost packages are possible today because of two new and better plastics: Hercules Pro-fax® polypropylene and Hi-fax® high-density polyethylene. The distinctive qualities in these advanced polyolefins will help make certain that your packaging plays an increasingly profitable role in product merchandising.

Whether it is an enveloping bag of clear film to display and protect a product's goodness or a stiff container offering bonus long-term values-Hercules Pro-fax and Hi-fax offer the ideal materials for advancing today's marketing plans for fast, profitable turnover. Some of their singular advantages are demonstrated on these pages.

Simple throwaway packaging or durable containers with "buy appeal" after-purchase functions-whatever your package requirements in performance, appearance, and economy, look into the creative stimulation inherent in the family of modern polyolefins available from Hercules. Your inquiries are invited. Phone or write today.

Pro-fax bag keeps lettuce fresh longer



The introduction of the Kordite 1000 oriented polypropylene lettuce bag created a startling change for the better in produce packaging. Made of Hercules Pro-fax, this packaging film is an excellent moisture barrier assures that millions of heads of lettuce packaged in Kordite 1000 will retain their freshness longer. The biaxially oriented polypropylene film has sparkling clarity and crispness, high strength and toughness, and offers indefinite storage life. Treated Kordite 1000 is readily printable. Results are clear and sharp, and the ink holds fast to the film, thus adding colorful promotional values to the package.

As a film in cast or oriented form, Hercules Pro-fax polypropylene yields more crystal-clear packaging per pound than any other plastic. Lowcost Pro-fax packaging wraps are available for all kinds of dry and moist products. With excellent resistance to creasing and abrasion, they are heatsealable and cementable. High resistance to fatty foods and safe sterilization at temperatures to 275°F invite broad application potentials. Most important of all, Pro-fax is FDA approved.

Pro-fax hinges dispense with assembly costs

Pro-fax was a "must" in this unique dispenser-package for RIBBON DOPE* Thread Sealant by Permacel, a new sealer designed for use on threaded pipe joints. Four integrally molded hinges are combined in a single molded part which opens to accommodate a roll of RIBBON DOPE, then folds and locks together to make a lightweight, compact carrier. A snap-in blade cuts tape to any desired length, and the handy unit can be tucked in a pocket or toolbox, stored in any convenient place, or kept available on the worktable. When product success hinges on functionality plus low cost, Pro-fax provides the *most* plastic for the job.

Pro-fax cuts production costs—permits permanent containers like portable typewriter cases to be molded in one



*Trademark of Permacel

piece with strong, tough built-in hinges. Even self-hinged containers for cigarette packs, jewelry, tools, office supplies, and playing cards, for example, can be molded at low cost. Pro-fax is immune to staining, and resists heat and chemical attack.



Hi-fax container combines buy appeal with savings

Roman Cleanser, the first major bleach manufacturer to package its products in plastic containers was also among the first users in this market to employ 0.962-density Hi-fax. Economy, maximum stiffness, and low permeation rate make the new Hi-fax series an ideal packaging material for big-volume bleach and household chemical packaging markets.

Three new types of Hercules high-density Hi-fax polyethylene resins in the 0.962 range were recently introduced for injection molding. They are easy to process and go a long way in erasing reject problems. Applications include bottled beverage carrying cases, automotive parts, housewares, large toys, and molded seats for institutional furniture.

HERCULES POWDER COMPANY

Polymers Department
Hercules Tower, 910 Market Street, Wilmington 99, Delaware

Pro-fax[®] and Hi-fax[®] are registered trademarks of the Hercules Powder Company.



QP61-6

Spencer Chemical Co., Kansas City. which recently purchased Flexicraft Industries, Inc. (see MODERN PACKAG-ING, Sept., 1961, p. 159), has now purchased Wrapture, Inc., Flushing, N. Y., and consolidated the two suppliers of flexible packaging. Now known as Flexicraft-Wrapture, Inc., the Spencer sub. is located at 3670 Dyre Ave., Bronx, N. Y. This consolidation has no effect on Crystal Tube Corp. of Chicago, the other supplier of flexiblepackaging materials recently acquired by Spencer.

Harvey Eisenberg has been named director of mktg. for Champlain-Zapata



Eisenberg

Plastics Machinery, Inc., Caldwell, N. J., a newly formed firm which will manufacture and market molding machinery for expandable polystyrene. Mr. Eisenberg will be in charge of all marketing and sales programs for the company's machinery line, which is designed to meet

the machinery requirements of packaging applications of expandable polystyrene and is said to embody many new technical features to achieve full automation. Prior to joining Champlain-Zapata, Mr. Eisenberg was a marketing and packaging consultant.

Champlain-Zapata has also appointed Frank H. Lambert as director of research and development. Mr. Lambert will direct the firm's research laboratory, which will conduct investigations into basic material properties as well as advanced molding processes.

A package-design dept. has been created by Aluminum Co. of America, Pittsburgh, to serve its new Printed Foil Div. (See MODERN PACKAGING, June, 1961, p. 160.) Robert P. Eganhouse has been named mgr. of the new dept., which will provide graphic-design service for customers purchasing Alcoa printed foil for packaging.

Burroughs Wellcome & Co., Tuckahoe, N. Y., manufacturer and marketer of pharmaceuticals and proprietary medicines, has appointed Ira M. Troy to the position of package-development mgr. He will be responsible for all package-development work and will report to the marketing mgr.

Joseph T. Hanlon has been appointed mgr. of advtg. for AviSun Corp., Philadelphia. Prior to joining AviSun, Mr. Hanlon was advtg. and sales prom. mgr. for Crown Cork & Seal Co., also of Philadelphia. He had been with Crown for 23 years.

A biaxially oriented polypropylene packaging film will be introduced early next year by AviSun. The announce-

ment was made by Dr. Herschel H. Cudd, company pres., at dedication ceremonies for AviSun's 100-millionpound-per-year polypropylene plant at New Castle, Del. The new installation is reported to be the largest of its kind in the world. Plant features include a catalyst system which is claimed to contribute to superior polymer quality as well as to polypropylene-resin manufacturing economies.

C. M. Green has been elected pres. and gen. mgr. of Mosinee Paper Mills, Mosinee, Wis. He had been exec. v.p. and gen. mgr. for the past several years and joined the company in 1925.

Columbia Box Board Mills, Inc., Chatham, N. Y., has formed a new manufacturing company for laminating, molded products and other paperboard and plastics specialties. The company, a wholly owned sub. of the parent firm, is known as Columbia Specialties, Inc. New facilities are being constructed in Chatham for the company and operations are scheduled to begin by the first of the year. Ralph Barber has been elected v.p. of the new company and will act as gen. mgr. Previously he was Eastern sales mgr. for United Board & Carton Co., New York.

James W. Hackett becomes Administrative Div. v.p. and director of engineering and research for Owens-Illinois Glass Co., Toledo. He succeeds Elliott R. Owens, now v.p. for production in O-I's new Forest Products Div. The Forest Products Div. consolidates the company's Forest Products Group divisions into a single operating entity. Edwin D. Dodd, v.p., becomes gen. mgr. of the new div. New v.p.'s and regional gen. mgrs. are: Paul R. Gil-

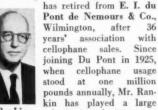




more, Northeastern; Henry C. Rudy, North Central; Thomas M. Cox, Jr., Southeastern, and F. W. Wallis, South Central. National Container Corp. of Calif., an O-I sub., will serve the Pacific Coast region. Other management posts filled in the newly organized division include the following v.p.'s: research and engineering, Dr. Fred B. Schelhorn; marketing, Thomas W. Schelhorn; marketing, Brown, Jr., and administration and control, Robert J. Lanigan.

In other O-I activities, R. H. Mulford, exec, v.p. for the company's Glass Container, Pacific Coast and Closure & Plastics Divs., has been elected to the board of directors. He succeeds Herman K. Kimble, resigned. In the Closure & Plastics Div., F. D. MacIver, Jr., has been appointed gen. district mgr. for sales. He is succeeded as Chicago district sales mgr. by G. P. Mead, Jr. The div. has also created a new sales district in Atlanta, with H. M. Powell, Jr., as mgr. John D. Griem has been named a v.p. of Owens-Illinois International, S.A., and will be transferred to Dusseldorf, W. Germany, to act as liaison with Gerres-heimer Glass Works. Thomas M. Huber, also a v.p. of O-I International. is being transferred from this country to Belgium where he will serve as liaison with Durobor, a Belgium glass firm. O-I holds the majority interest in both companies.

J. Duncan Rankin, one of the pioneers in the cellophane industry in the U.S.,



role in introducing many packaging principles that have aided cellophane's rise to its present onemillion-pounds-per-day volume of use. He has a patent in his name for the development of "L" (intermediately moisture proof) type cellophane, used chiefly for produce and poultry.

Maurice F. Nagle has been promoted to director, tobacco packaging, Reynolds Metals Co., Richmond, Va. He had been market mgr. for tobacco packaging and has been with Reynolds Metals for 27 years.

The Mead Corp., Dayton, has acquired three Iowa corrugated-shipping-container companies. Two of them, the Waterloo Container Corp. and the Waterloo Corrugated Box Co., will be merged into a single, wholly owned sub. They are located in Waterloo, Iowa. The Fort Dodge Container Corp., Fort Dodge, Iowa, will also be operated as a wholly owned sub. There will be no changes in management or personnel in any of the three plants.

Champion Papers Inc. is the new name chosen for the Hamilton, O., firm which since 1935 has been known as The Champion Paper & Fibre Co. The new name is one of a series of changes, which also include the design of new corporate symbols and the relocation of the company's corporate and staff headquarters in a modern new building. The company's new address is Knights-

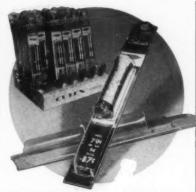
six success packages



VICKS Inhaler packed in a SNAPLAX — Plaxall's double undercut blister "snaps" into a diecut display backing so as to eliminate sealing.



LEHN & FINK packs six Noreen hair rinses in this acetate SLIDEPLAX — slide-out card permits individual dispensing.



CUTEX lipsticks by N tham Warren are vividly displayed in these beautifully contoured transparent SLIDE-PLAX packages.



BECTON, DICKINSON thermometer and case are held firmly in snap-fit precision formed blisters for maximum protection.



ISODINE bottle encased in one piece fold-over blister — this stand-up, seethrough package "sells" from both sides.



BRIDGEPORT METAL flashlight and battery combinations are readily accessible for inspection or testing in sturdy SLIDEPLAX packages.

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WRITE FOR PLAXALL'S NEW BROCHURE "FROM POWDER TO PACKAGE"

Plants & People [Cont'd]

bridge, Hamilton, O. This address, says Champion, reflects the company's traditional mounted-knight symbol which has been updated as part of a program to strengthen corporate identity. Another symbol-brand new to the firmis a joined, flowing CP logotype designed by Noel Martin, the company's design consultant, and intended to represent the continuous web flow of the paper-making process.

Champion has also acquired the Western, Southwestern and Midwestern distributive facilities of the Carpenter Paper Co., Omaha, whose pres., Kenneth Holland, now heads Champion's Distribution Div.



Chemore Corp., York, has appointed William U. Funk as mgr. of its Film Div. Chemore is general representative in the United States for Montecatini Soc. Gen., Milan, Italy, and Novamont Corp., Montecatini's wholly owned American manufacturing sub. In his

new position, Mr. Funk will be responsible for the marketing and sales of Moplefane polypropylene film. He is chairman of the Film Committee of the Society of the Plastics Industry.

Several promotions have been made in Minnesota Mining & Mfg. Co.'s Industrial Tape Div. They include: James W. West, to div. sales mgr., Donald J. Joyce, to div. mktg. mgr. and E. T. Thompson, to Western regional mgr. Mr. West, who has been with 3M since 1946, will have full responsibility for all field sales operations and personnel. He will work closely with Mr. Joyce, whose new responsibilities include all phases of marketing and sales-promotion efforts as well as market research and analysis. Mr. Thompson will headquarter at 3M's Los Angeles office and will have full responsibility for sales activities in the Western U. S.

Several new industrial-tape branch sales mgrs. have also been announced by the company. Included are: W. S. Herbert, Richfield, N. J. (New York area); W. Doehrman, Los Angeles, and W. E. Woods, St. Louis.

George Furutani is new mgr. for package development at Shulton, Inc., New York, manufacturer of toiletries. He succeeds Earl Engel, who becomes general purchasing agent. Mr. Furutani joined Shulton in 1944 and has served as a product engineer in package development since 1956,

Celanese Plastics Co., div. Celanese Corp. of America, New York, has made two promotions in its polyethylene-film sales staff. Bruce L. Martin, formerly a New York sales representative, and Larry S. O'Hearn, formerly a Chicago sales representative, have been named supervisors of sales for the Eastern and Central U. S., respectively. Celanese Plastics has also embarked on a program to relocate its East Coast polyethylene-film production in expanded facilities in New Castle. The transfer of film manufacturing, presently located in Paterson, N. J., is expected to be completed during the first quarter of 1962.

Arthur R. Miller, formerly mgr. of the Chicago sales office of Thilmany Pulp & Paper Co., Kaukauna, Wis., has been transferred to the marketing div. of the firm's Plastics Dept. He will be located at the company's Kaukauna headquarters. Succeeding Mr. Miller as Chicago sales mgr. is Robert H. Berth, who formerly managed the Cincinnati office. J. J. Fitzpatrick has been transferred from Boston to manage the Cincinnati sales office. The firm's Boston office has been closed and the area it served is now being covered by Thilmany's Eastern Sales Div. office in Ridgewood, N. J.

Three executives at the Covington, Va., research labo.atory of West Virginia Pulp & Paper Co., New York, have been promoted. Fred H. Freuler, director of the Covington laboratory since 1959, has been named to the newly created post of director of paper making and mechanical research and development. He will be headquartered in the New York offices. Girard L. Calehuff, group leader of fluid mechanics research at Covington, succeeds Mr. Freuler as research director. Joseph J. Kilian, a research group leader at Covington, has been promoted to research director for paper-making process development work, His research groups provide process control and technical services to the company's operating divisions.

The 19-year-old Chicago set-up and folding box maker-Field Paper Box Co.-has changed its name to Field Container Corp. The change in name reflects the company's expansion into areas other than those of set-up and folding boxes.

As part of an expansion program on the West Coast, Hayssen Mfg. Co., Sheboygan, Wis., has opened a new



Johnson

sales office at 5165 Triggs St., Los Angeles 22. Loyd Johnson, who has been associated with Hayssen in many capacities, has been named sales mgr, of Hayssen Pacific and will be stationed at the company's main West Coast office in San Mateo, Calif. Hayssen also has pur-

chased patents and manufacturing rights on the Pac-Form line of machinery from Package Forming Machinery Co., Toronto, Canada. The newly acquired line of machinery utilizes a new patented technique for setting up and closing heat-sealable cartons at production speeds of up to 150 cartons per minute, according to Hayssen.

TFC of Canada Ltd., manufacturer of cellophane film, is entering the plasticfilm field. The company has completed the installation of polyolefin film-extrusion equipment at its Cornwall, Ontario,

plant. For the past two years the company has been the Canadian distributor for AviSun's polypropylene. The new plant will produce both polypropylene and polyethylene packaging film.

Arrow Converting Equipment, Inc., is a newly formed company which is manufacturi g web-processing equipment for plastic films and paper. Its headquarters are at 271 Grove Ave., Verona, N. J. The company's pres. is Bert Mastriani, formerly of John Dusenbery Co., Clinton, N. J.



Scott

Joseph Scott has been named director of mktg. and field sales mgr. for Packaging Paramount Corp., Chalfont, printer and converter of flexible packaging. Mr. Scott has been in the flexible-packaging field for more than 30 years and has served with E. I. du

Pont de Nemours & Co.'s Cellophane Div. He is a member and has served on many committees of the National Flexible Packaging Assn. Paramount has also consolidated all of its Eastern operations into its new general office and plant building in Chalfont. The new facility contains 105,000 sq. ft.

Recently named as director of advertising and packaging for the David Traum Co., Heirloom Needlework Guild and Columbia-Minerva Corp., all of New York, was Alan Berger. Mr. Berger formerly operated his own package-consultant firm.

Crompton & Knowles Packaging Corp., Holyoke, Mass., has concluded "technical partnership" agreement with Clavell, Bate & Nephews, Ltd. of Nelson, Lancashire, England. The object of the agreement is to promote the complimentary exchange of packagingmachinery experience so that both companies can strengthen their respective overseas operations, say spokesmen for both firms. Lennart E. Ivarson, a member of Crompton & Knowles' sales dept., will take up residence in Zurich, Switzerland, to direct the American firm's overseas operations.

C&K has also acquired Vol-Pak Inc., York, manufacturer of modular pouch-packaging machines. The newly acquired company will be merged into Crompton & Knowles Packaging Corp. and Vol-Pak machines are to be manufactured in a new plant in Agawam, Mass. The machines will be sold under the Redington Vol-Pak name.

J. Barrett Grant has been elected v.p. of Extruded Plastics, Inc., Norwalk, Conn., a sub. of Richardson-Merrell, Inc., New York, Mr. Grant will continue as director of mfg. and asst. to the pres, for product planning. He has been with Extruded Plastics since 1953 and a director since 1957. Richardson-Merrell formerly was Vick Chemical Co.

A new sub.—Cosden Petrochemical Corp.—has been formed by Cosden Petroleum Corp., Big Spring, Tex. The new sub. will be located in New



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Plants & People [Cont'd]

York and will perform marketing-advisory services in the plastics and other fields. Franklin E. Eck, who has been marketing mgr. of chemicals and plastics for Cosden Petroleum—a sub. of W. R. Grace & Co.—is pres. of the new corporation.



Wasar

Felix V. Waser, who has done industrial and package-design work both in Europe and America, has opened his own studio at 575 S. Barrington, Los Angeles. He is a graduate of the Art School of Zurich, holder of the Swiss Confederation diploma in graphics and lithography

and studied in Paris at the Art Academic de la Grande Chaumiere. He has had his own studio in Paris and Mexico City. Since taking up residence in the United States in 1958 he has been an associate of W. B. Ford Design Associates, Inc., Detroit.

M. G. Kuhlman has been named technical director of East Texas Pulp & Paper Co., Silsbee, Tex. He comes to Eastex from Potlatch Forests, Inc., Lewiston, Idaho, where he had been technical director since 1956. Mr. Kuhlman succeeds J. B. Beek, resigned.

A realignment of executive duties and responsibilities has taken place in the corporate marketing and merchandising operations of Crown Zellerbach Corp., San Francisco. King Wilkin, who had been serving as corporate v.p. for mktg., has been elected board chairman of Zellerbach Paper Co., the firm's papermerchandising sub. Mr. Wilkin is succeeded by John Gilbert, who is also v.p. and gen. mgr. of Zellerbach Paper. W. J. Zellerbach, corporate v.p. for mktg. services, has been named pres. and a member of the board of directors of Zellerbach Paper.

Central States Paper & Bag Co., St. Louis, has purchased Seymour Wallas & Co., also of St. Louis. Seymour Wallas' machinery will be used to expand and improve Central States' packaging products. The plastic products manufactured by Seymour Wallas will be continued in production and will be sold to retailers through the Central States Resale Products Div.

William E. Young, former director of engineering for Standard Packaging



Young

for Standard Packaging Corp. and a partner of Mahaffy Engineering, has formed his own firm in Little Falls, N. J.—William E. Young & Co.—to provide consultant service for packaging development, packaging methods and construction of special machinery. He remains a partner of Mahaffy. Mr.

Young, who helped develop machinery for the vacuum and gas packaging of luncheon meats and frankfurters, is the author of sections on heat sealing and vacuum packaging which will appear in the 1962 edition of the Modern Packaging Encyclopedia Issue.

Dixie Wax Paper Co., Dallas, has made several changes in its management organization. Included are the naming of two senior v.p.'s—John D. Morgan, mktg., and Thomas S. Williams, operations—and the promotion of Harold V. Brady to v.p. for product planning and research.

A new building to house the company's 13 laboratories and departments has been completed by Anchor Hocking Glass Corp., in Lancaster, Ohio. The new technical center houses all of the firm's corporate laboratories and research and development operations, including those for its Tableware, Container, Closure, Sealing Machine, Carton and Industrial Divs.

In line with other recent research promotions (see MODERN PACKAGING, Oct., 1961, p. 156), Allied Chemical Corp.'s General Chemical Div. has named three former asst. research directors to director of their respective departments. William C. Ruch now directs development research, Dr. Robert W. Mason heads up laboratory research and Charles D. Boyer is in charge of planning research. General Chemical



Ruch

Mason

Rover

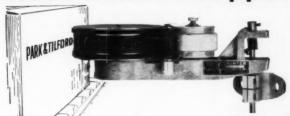
has also named Robert A. Miller sales mgr. for specialty plastic films. He will direct the sales of "Aclar" fluorohalocarbon film and "Capran" polyamide film. Both films—developed by Allied—are currently in pilot-plant production, but reportedly will be in commercial production by the end of the year in the company's new specialty-films plant near Pottsville, Pa.

Allied's General Chemical Div. has also moved its technical service laboratory to new quarters located at the company's Morris Township, N. J., research center. The new technical facilities—formerly located in Edgewater, N. J.—occupy part of a recently completed laboratory wing.

The Bowater Organisation, Knights-bridge, London, has made a further acquisition within the European Common Market with its purchase of control of the Roman packaging company, Europea S.p.A. This firm—now known as Bowater Europea S.p.A.—produces a wide range of packaging materials, including folding cartons, bags and labels of board, polyethylene and foil laminates, and aluminum tubes and aerosols.

Dura-Containers, Inc. is the new name of the former Dura-Crates, Inc. of Indianapolis. The firm has also moved into

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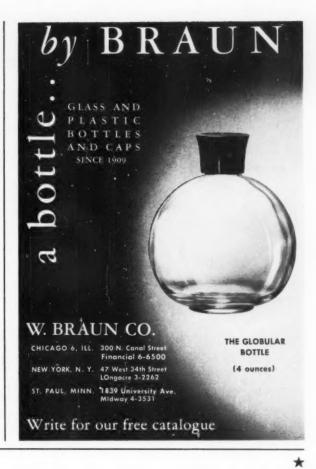
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Plants & People [Cont'd]

new facilities located at 6400 English Ave., Indianapolis 19.

A new research center is being planned by The Kendall Co., Chicago Div., manufacturer of industrial tapes and protective coatings. The new center will be located in Barrington, Ill.

Anchor Hocking Glass Corp., Lancaster, O., has moved its Baltimore Package Div. display and sales office to larger and more modern quarters at 100 Latrobe Bldg., 2 E. Read St., Baltimore 2. C. H. Salisbury is district mgr.



Cherbas

Thomas Cherbas has been appointed chief engineer of the Wrap-King Div. of Crompton & Knowles Packaging Corp., Holyoke, Mass. In his new position, Mr. Cherbas will have complete responsibility for all engineering operations of the division,

including developmental work. He was formerly supervisor of packaging for the Kellogg Co., Battle Creek, Mich.

Promotions

W. C. Kennedy: from New York district sales mgr. to Eastern regional mgr. for bag and paper sales, Paperboard & Kraft Paper Div., Continental Can Co., New York. William P. Dunton succeeds Mr. Kennedy. Ralph Stafford: to New York City district sales mgr., Flexible Packaging Div. He succeeds D. C. Lewis who has become special representative for national accounts in the Eastern area, E. S. Shorkey suc-ceeds Mr. Stafford as district sales mgr. in Mount Vernon, O.

Fred Kewell II has been named pres. of the Western Paper Box Co., Hayward, Calif. Other promotions include: Clifford D. Allen, to v.p.

Walter B. McKinney: from sales mgr. to gen. mgr., Hartford Div., Emhart Mfg. Co., Hartford, Conn.

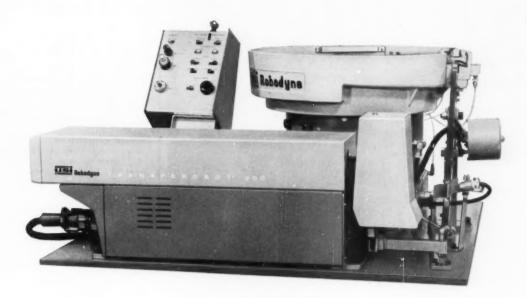
George S. Denning: from gen. sales mgr. to asst. gen. mgr., Ritchie Paperboard Div., Stone Container Corp., Chicago. He will, says the company, apply his 42-year sales and management experience to long-range planning and merchandising activities. H. S. Hanson, formerly Eastern district mgr. of the Ritchie Div., succeeds Mr. Denning.

Hugh Edwards: to mgr., packaging research and development dept., Bradley & Vrooman, Chicago. The firm produces interior coatings for containers.

John R. Peterson: to office mgr., Cleveland district sales office, Union Carbide Plastic Co., Div. Union Carbide Corp., New York.

Appointments

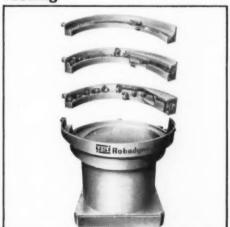
Leonard F. Albers: from Container Corp. of America to Central div. sales



SOIVED: the problem of obsolescence

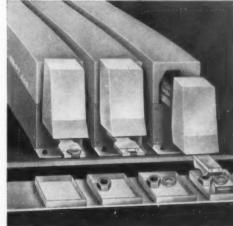
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Plants & People [Cont'd]

mgr., Imco Container Co. Imco is a div. of the Rexall Drug & Chemical Co., Los Angeles.

Charles Bartell: from Dewey & Almy Chemical Div. of W. R. Grace & Co., Cambridge, Mass., to director of research and development, Mystik Adhesive Products, Inc., Chicago.

Gunther Slaton: from the Jell-O Div., General Foods Corp., to v.p. for operations, Inpak Systems, Inc., New York. He will be in charge of operations for stretchable-packaging machinery and food-packaging equipment.

James Bernard: to sales director, Foam Products Div., Arvey Corp., Chicago.

Evert M. Anderson: to admin. asst. to the v.p. and gen. mgr., Avery Label Co., Monrovia, Calif. The company is a supplier of pressure-sensitive labels and automatic labeling machinery.

John H. Brooks: from Container Corp. of America to gen. mgr. of Consolidated Paper Co.'s new Tennessee Valley Corrugated Div. Consolidated's home office is in Monroe, Mich.

Thomas R. Gillette, Jr.: to district sales mgr. for Chicago, The Kordite Co., Macedon, N.Y.

Theodore Levitt: to plans board member, Lippincott & Margulies, Inc., New York design firm. Mr. Levitt is on the faculty of Harvard University Graduate Business School.

R. G. Landgraf, Jr.: from Continental Can Co., New York, to asst. to the mgr. of can-stock sales, Kaiser Aluminum & Chemical Corp., Oakland, Calif.

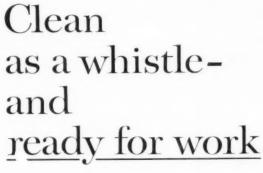
Dunbar L. Shanklin: to consultant, National Can Corp., Chicago. Mr. Shanklin formerly was a v.p. of W. R. Grave & Co.'s Dewey & Almy Chemical Div., Cambridge, Mass.

Obituaries

Jean Masbach, 64, board member of Brockway Glass Co., Brockway, Pa., and head of the company's New York sales office, died Sept. 5. He joined Brockway in 1927 as a salesman in the firm's Baltimore office. He took over management of the New York office a year later and in his 33 years there was credited by the company for many production and sales advances.

William Findlay Wilson, 54, pres. and gen. mgr. of Anchor Cap & Closure Corp. of Canada, Ltd., Toronto, died recently of a heart attack. He joined the firm—a sub. of Anchor Hocking Glass Corp.—in 1928. He was elected v.p. in 1946 and became pres. in 1953.

Jerry C. Stone, v.p. and secy. of New Cumberland Box Co., New Cumberland, Pa., has died. He had been in the set-up box business for 42 years and was also pres. of the Nu-Box Corp. in New Cumberland.





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In this instance, Holland Industries, Inc., (Buffalo, N.Y.) picked Kodapak II to package Champion's Spark Plug Gauge and Tool in groups of ten blisters each to a self-seller display card.

Result: Skin-tight protection from dust, dirt and moisture ... plus complete visibility! This keeps merchandise fresh and clean, assures fast unit-sell, stops loss from both shop-wear and pilfering. At the same time, protecting blister is easily removed by purchaser. For more about Kodapak II and packaging, see our representative or write:

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Sales Offices: New York, Chicago, Atlanta. Sales Representatives: Cleveland, Philadelphia, Providence. Distributors: San Francisco, Los Angeles, Portland, Seattle (Wilson & Geo. Meyer & Co.); Toronto, Montreal (Paper Sales, Ltd.). 'Kodapak'' is a trademark for Eastman's plastic sheet



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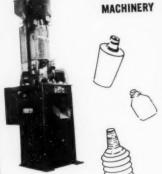
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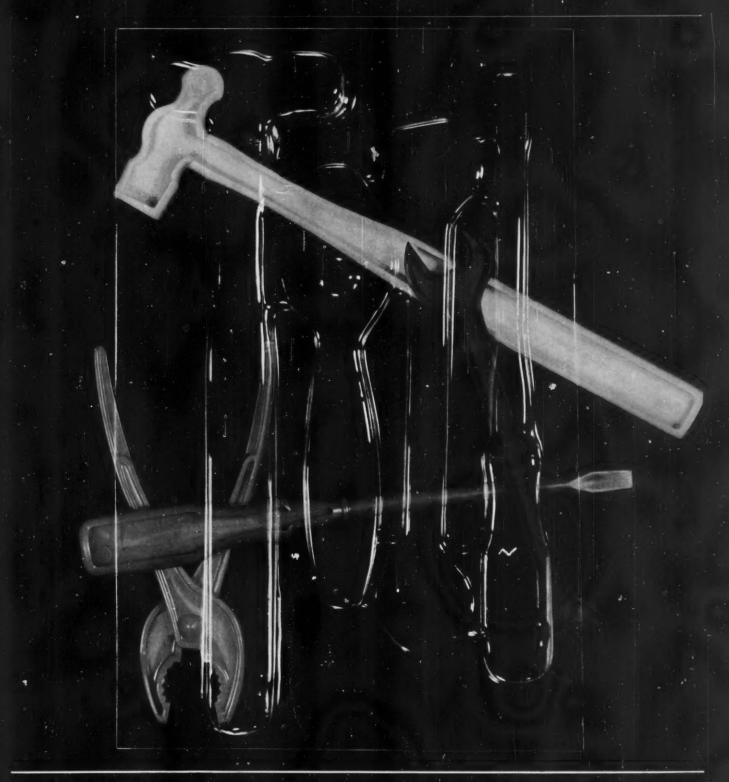
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PLAX GIVES A PACKAGE A PLUS

OLIVER announces the all-new

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Plan now to wrap your products in poly-ethylene — or any other of tomorrow's soft, plastic films - with its many advantages of extra protection and economy. This all-new versatile machine also handles cellophane, waxed paper and heat sealing foils. A change of films requires a simple electronic heat adjustment. The Oliver embodies the latest engineering developments . .

1. The Oliver uses ordinary polyethylene — plain or printed, high, medium, low density of 1 mil and up.

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4. A roll-type labeler can heat-seal an attractive label to top surface of package.

5. Wrapping film can be made as snug or loose around products as desired.

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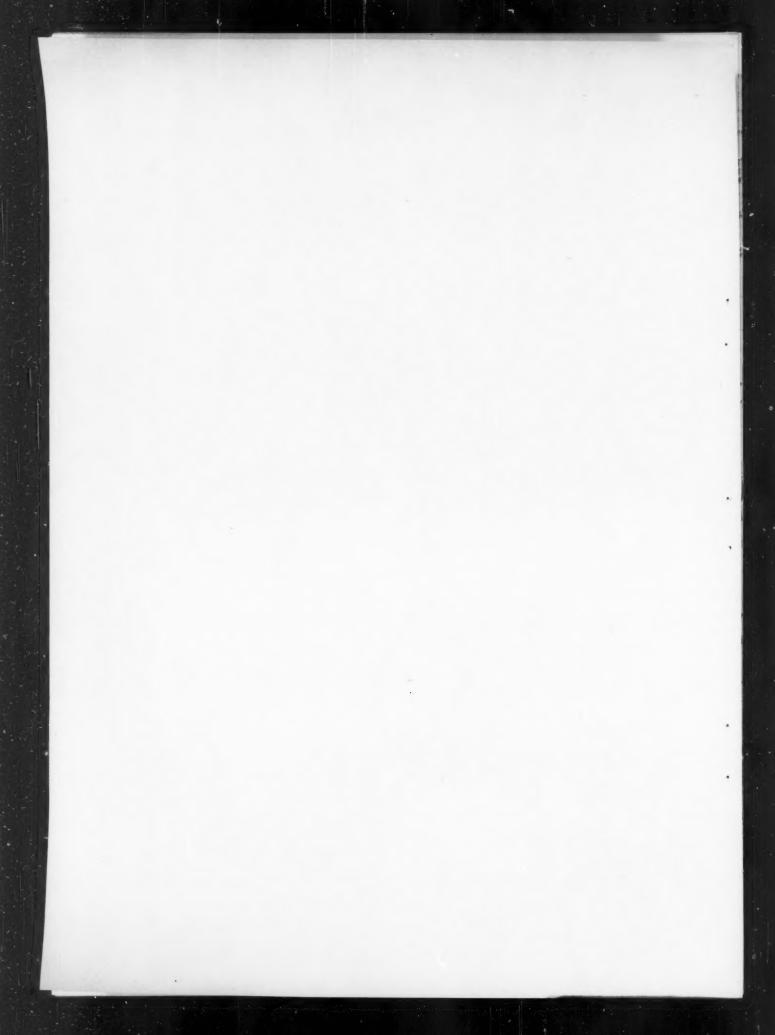
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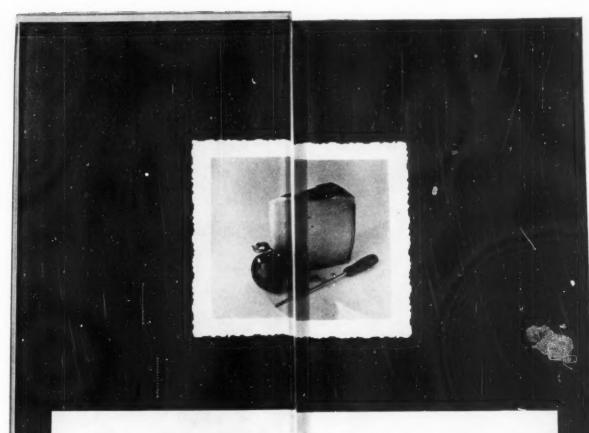
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This was photographed through Resinite,[®] the remarkable new PVC film by Borden

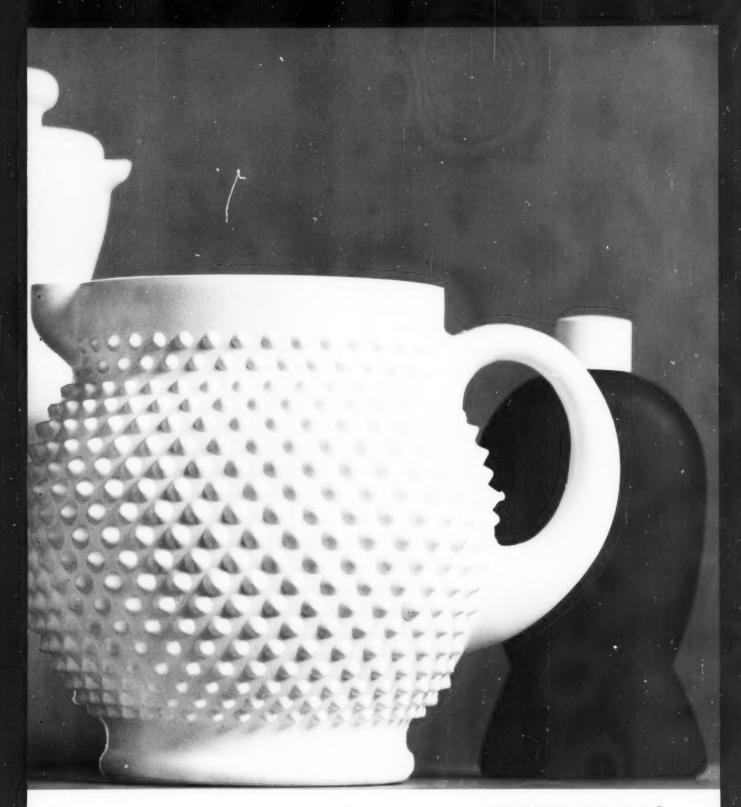
Polyvinyl chloride film is accepted as an outstanding packaging film. Now, Borden brings you RESINITE, a new PVC packaging film as clear as glass. Its sparkling transparency assures maximum visual appeal from the day of packaging to the day of sale—and at a low cost. Would you like a sample of this new PVC: film? Then you'll be able to compare its exceptional clarity with other packaging films. You'll also see for yourself that RESINITE Packaging Film is soft, heat sealable, stays clean and dust free. Write: THE BORDEN CHEMICAL COMPANY

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in two important packaging operations

A manufacturer of eye beauty products formerly used threeinch asphaltic tape to make up master shipping containers. A Bostitch Economy Man recommended stapling. A Bostitch "Golden Belt" box bottomer increased production to 500 cartons a day, three times as fast as the other method. Space needs were reduced 50 per cent and material costs cut in half. Stapling has also improved carton appearance.

In another operation, 15,000 eyebrow pencils are carded daily by a single operator using a Bostitch motor-driven

stapler. Previously the pencils were slid into preformed slots on the card without protection. Now, by stapling a blister cover on the card, pilferage has been greatly reduced at the retail level. Inventory shrinkage also has been minimized because the products stay clean and are easier to stock.

For more information, look up Bostitch in your phone book and ask the Bostitch Economy Man to analyze your fastening methods. If stapling can cut your costs, he'll know how, Call him soon. Or write to address below.





To secure plastic blister to card requires only two staples with a Bostitch motor-driven stapler. Each operator turns out about 15,000 carded eyebrow pencils daily.

Motor-driven "Golden Belt" box bottomer staples wide range of boxes, including 350-lb. test solid fiberboard export cartons. Its deep throat allows stapling entire bottom of carton without reversing.

Fasten it better and faster with

With Every Bostitch Machine You Get . . .

The right combination for your needs from 800 staplers and over 200 staples . . . nation-wide parts, service and technical aid backed by the industry's most modern factory . . . assurance that Bostitch products will operate to your complete satisfaction.



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DIVERS SAUER'S SPICES

RICHMOND 20.VA. May 2, 1961

New Jersey Machine Corp. 16th Street & Willow Avenue Hoboken, New Jersey

Attention Mr. Dave Goddard

Gentlemen:

With reference to your letter of April 27, 1961, concerning the service of your Model 386 front and back Pony Express labeler, please be advised that we have had very satisfactory results in labeling our glass line of spices on this machine. The machine has been utilized in both front and front and back labeling and the registration has been very good.

As far as changeover from one type glass and label to another is concerned, the machine is simple to change and our operators have been very well pleased with the results in changing from one size to the other. We lose very little production time in changing from one size container to the other.

To date, we have run this machine up to 65 jars per minute and have had no unusual troubles. Our operators can change the above machine completely for front and back labeling in approximately 30 minutes. The machine does not require a full time operator since it has a sufficiently large label magazine. An operator should be close at hand to observe the machine and stop same if something along the line jams. This could be eliminated with an automatic control on the infeed to the machine.

Best regards.

Yours very truly,

THE C. F. SAUER COMPANY

FFJ/np

F. F. Jewett Vice President

THANKS, MR. JEWETT, FOR YOUR KIND WORDS.

As in Mr. Jewett's case, the accurate register and quick changeover inherent in our double turret Pony Express suction labeler can probably help you, too • Send for information or call our sales engineer.



Max. Label Width	4-7/8*	4-	1/2"
Max. Container Dia. or Thickness	4-1/4"	3-3/4"	3-1/2"
Speed	65/min.	76/min.	80/min





MAIN OFFICE AND PLANT . 16TH ST. AND WILLOW AVENUE, HOBOKEN, N. J. . OLDFIELD 9.0483 FACTORY SALES AND SERVICE BRANCHES, 325 W. HURON ST., CHICAGO 10, ILLINOIS, 2500 W. 8TH ST., LOS ANGELES 57, CALIFORNIA

EQUIPMENT & MATTERIALS

[Continued from page 64]

automated, high-speed packaging lines. Designated Web-Wrap, it packages from a continously flowing web and was reportedly developed to handle a wide range of small products (up to 8½ by 3 by 1½ in.). The machine will handle most heat-sealable materials and utilizes an electric-eye registration for pre-printed materials. High product output at low machine speeds and without the heat-seal elements coming into contact with the product is said to enable the unit to operate at speeds of up to 300 hermetically sealed packages per minute. Quick size changes are also cited by the supplier. The machine measures 9 by 2½ ft. Potdevin Machine Co., Teterboro, N. J.

Three new filling machines

Arenco Machine will show three new fillers at the Machinery Show this month. They are: a high-speed tube-filling machine, a fully automatic powder filler and compressor and a semi-automatic powder-filling unit. The Arenco GAN tube filler is said to be capable of filling tubes at high speeds and requires only one operator. It comes fully equipped with all standard features, including tube feed, tube registration and tube cleaning. The Alite A. T. 5 powder filling and compressing unit has a rated output of 16 units per minute. Filling and compressing are accomplished simultaneously. The unit is able to provide hydraulic pressures ranging from 40 to 1,000 p.s.i. This enables the machine to densify and bond any type of powder and produce a cake which will not disintegrate in handling, the supplier notes. The Alite LF Semi-automatic powder filler accommodates powders and granulars from 1/4 oz. to 3 lbs. Its speed can be adjusted to 16 or 32 fills per minute and when coupled to an automatic line, up to 50 per minute. Arenco Machine Corp., 25 W. 43 St., New York.

Stretch-film packaging machine

The Nevins Co. will be exhibiting at the Machinery Show its new Model SP-4-6 machine for forming the company's "Stretch-Pak" display packages (See "See-Through Card Pack," Modern Packaging, March, 1959, p. 84). The unit



is said to provide the latest and most advanced production method for forming, filling and sealing this type of package. In operation, the die-cut blanks (with polyvinyl chloride film windows) are automatically fed from a magazine hopper onto aluminum dies located at eight stations on the rotary turntable. A combination of heat and vacuum then forms the film into a loose pocket, after which the product is manually inserted into the pocket and plow folders fold the two halves of the blank together. These halves are dielectrically sealed and the package is conveyed past heating units which cause the film to shrink tightly around the product. The maximum product diameter handled by the machine is 4 in. The unit requires between two and four operators and production speeds vary up to 36 packages per minute, says the company. The Nevins Co., Clifton, N. J.

Wadding machine and electronic counter

On display in the Lakso booth at the Machinery Show will be a new Model 65 wadding machine (illustrated) and a Model 58 Multi-Track Electronic counter. The wadding

machine is designed to insert a cushioning material-other than cotton or rayon coil-into tablet and capsule bot-The autotles matic unit is designed to handle such sheet materials as paper, polyethylene, cellophane, non-woven cloth and similar materials. The supplier notes that equivalent



protection can be attained with less weight of sheet material-thus lowering material cost-and more of the sheet material can be loaded on the machine to reduce reloading down time. In operation, the sheet of material is cut from the supply roll and formed into a rough tube with all edges and corners pointing downward. This is inserted into the bottle neck where the downward-pointing edges and corners enter into the interstices between the top layer of tablets and the bottle. Continued downward pressure crumples the sheet of material into a wad until it is completely seated within the neck of the bottle. Bottles are fed through the unit in a straight line, with mechanical bottle indexing. Minimum bottle diameter is 1 in.; minimum height is 2 in. Maximum bottle diameter is 21/2 in.; maximum height is 4% in. The supplier's multiple-channel Model 58 electronic tablet and capsule counter is automatic in operation. Bottles are fed into parallel conveyor lines at the rear of the machine and feed directly to the filling spouts at the front. Tablets flow from the hopper into individual vibratory feeder trays to the feed belts. Rotating brushes place the tablets on the belt in a single layer and stationary guides over the belt cause the tablets to form in single file. The line of tablets passes a light beam which sends an impulse to a photo-cell and then to a pre-determining electronic counter. When pre-set count is reached, a gate diverts the flow to the second filling funnel in the channel, Thus two bottles are filled alternately by each channel. The machine will fill any bottle up to 21/2 in. in diameter and up to 434 in. in height. The Lakso Co., Fitchburg, Mass.

Double-knife roll cutter

On exhibit at the Machinery Show this month will be Oscar I. Judelshon's new Unicut electronic double-knife roll cutter. This unit reportedly will slit a roll of film without rewinding considerably faster than conventional units. Shifting in rewinding due to hard or soft spots on the film or gauge variations is thus eliminated. The sides of the roll are said to be perfectly flat—not flagged or fused. The unit also can be used as an end trimmer, with as little as 1/16 in. trimmed off the side of a roll without adjustment. An automatic programming device for slitting various widths automatically is also included, the supplier notes. Oscar I. Judelshon, Inc., 404 Tonnele Ave., Jersey City.

Level-checking device

Shown for the first time at the Machinery Show will be a new level-checking device by Hi-Speed Checkweigher. The unit will be seen in operation with the firm's Model A-57 checkweigher, to illustrate how the two units can provide height-of-fill check and weight check simultaneously. The

There IS something **NEW** in this BAG!

IT'S DUTABAG

- · Does not bleed, stain, offset or delaminate
- Has inherent elasticity, superior strength and puncture resistance
- Resists oil, grease and moisture
- Available in Flat, Creped and Poly-Coated finishes—with or without glass fiber reinforcing

Look what's new in bag packaging! Dura-BAG . . . made of THILCO-TUF. And, it offers a brand new dimension to heavy-duty packaging that results in even greater product protection-full protection. THILCO-TUF is no ordinary heavy-duty paper, but an exclusive, patented paper combination that features two sturdy kraft outer sheets laminated together with a new "Hot Melt" Non-Staining Blond laminant and reinforced with strong, spun gla fibers for extra strength. Ideal for package

heavyweight products, Dura-BAGS r intact, where other bags fail. They can be Print-Decorated and are available in flat, pinch bottom and square bottom styles. Standard sizes from 2" x 83%" to 53%" x 2314" with intermediate sizes and gussets.

... made from THILCO-TUF
HI-Speed
GEARS



Both Dura-Bag and ordinary protective paper bag containing 50 lb. gears were immersed in water for same length of time.



After thorough soaking, bags were lifted. Dura-Bag (left) retained its strength—remained intact. Bottom of standard bag burst completely open.



Write for Sample Bags and THILCO-TUF Kit-Tells you all about this exclusive Thilco Protective paper.

THILMANY PULP & PAPER COMPANY

NEW YORK . CHICAGO . PHILADELPHIA . DETROIT . CINCINNATI . KANSAS CITY

Equipment & Materials [Continued]

company is also introducing an indicating-recording device which reportedly can be used in conjunction with any of its line of checkweighers. The unit features an easily read dial, calibrated in 1-gram increments. Hi-Speed Checkweigher Co., Ithaca, N. Y.

Pre-threaded crimp-cap applicator

An automatic machine for selection and application of prethreaded pilfer-proof aluminum screw caps will be intro-



duced by Resina Automatic chinery at the Machinery Show this month. The crimp-cap applicator, called Model KA, is a singlestation straightline unit designed to operate at a maximum speed of 45 containers per minute. Hopper fed, it features a dual-pur-

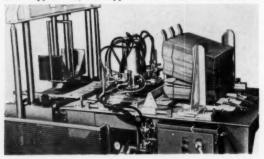
pose chuck which applies and tightens the cap and then crimps the bottom of the aluminum cap under the container's bead edge. Since removal of the cap automatically breaks the crimp seal, tampering is discouraged. The unit may be integrated into any conveyorized packaging line, the supplier notes, and is said to be adaptable to quick change-over. It can use caps ranging from 24 to 38 mm. in diameter. The firm is also showing a Model PB automatic restriction-plug inserter operating in tandem with an RU-200 screw capper, and a snap-on-fitment applicator. Resina Automatic Machinery Co., 572 Smith St., Brooklyn.

Self-contained film-wrapping unit

Mehl Mfg.'s MA-70 System is a self-contained automatic machine that uses slit polyethylene roll stock to form and heat seal a tough, transparent package around any product (up to 30 by 30 by 5 in.) To be exhibited at the Machinery Show this month, it is claimed to effect economies in money and time. In machine operation, polyethylene roll stock is opened by a spreader mechanism, with the fold of the stock facing away from the operator. The operator merely inserts the product in the open film and activates an attachment that heat seals and cuts the longitudinal sides and both ends of the film to predetermined size. The completed package then drops away and the machine is ready for a new cycle. Optional equipment includes a fourth-side sealer, an electric-eye control for printed film stock and various perforators and skip-slitters. Mehl Mfg. Co., 2057 Reading Rd., Cincinnati 2.

Spray kit for case-sealing glue

A glue spray kit for corrugated case sealers will be shown in operation on a Huntingdon traymaker at the Machinery Show this month. This new attachment for sealing machines sprays adhesive on the carton flaps, instead of customary roller application, the supplier notes. The unit is said to



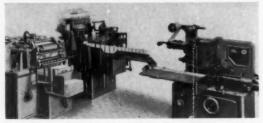
save on glue costs as well as time, floor space and maintenance. It is reported to be adaptable to existing case sealers and to operate with either resin or dextrin adhesives. Accurate control of the glue pattern is accomplished by varying the distance of the spray gun from the carton flap and striped application is also easily accomplished, according to the supplier. The spray kits are available in either twoor four-gun models, so that case tops or bottoms can be sprayed separately or simultaneously. Huntingdon Industries, Inc., Bethayres, Pa.

Horizontal-type cartoner

A new high-speed horizontal-type cartoning machine, known as the Model HEC, will be shown for the first time at the Machinery Show by the Canning Machinery Div. of FMC Corp. The unit automatically sets up cartons from the flat by means of a vacuum-feeding device, presents them to a loading station for manual loading and then closes the filled cartons. It can be adapted to handle lock, glue or tuck-style cartons, the supplier notes. The loader is reported to handle any product requiring horizontal loading at speeds up to 75 cartons per minute. Although built for a specified carton size, the machine can be converted for greater flexibility of carton sizes by means of change parts, the company claims. Canning Machinery Div., FMC Corp., 333 W. Julian St., San José 8, Calif.

Complete salt-packaging line

A complete line for cartoning salt will be exhibited by Fr. Hesser, West German designer and manufacturer of packaging equipment, at the Machinery Show this month. The system incorporates an aluminum-pouring-spout inserting mechanism in the carton-forming phase of the opera-



tion. The line consists of a Hesser Type PH-3 packaging machine with the spout-inserting attachment which is operated in tandem with a Hesser Type WCA-3 cellophane-wrapping machine. The system is said to produce filled and wrapped cartons at speeds of up to 80 packages per minute. The pouring-spout applicator incorporated into the unit is supplied by the Seal-Sprout Corp., Mountainside, N. J. Fr. Hesser, Maschinenfabrik A.G., Stuttgart, W. Germany.

Improved continuous motion labeler

MRM is exhibiting at the Machinery Show this month an improved model of its automatic, straight-line, continuous-motion labeling machine (See "Continuous-Motion Labeler," Modern Packaging, September, 1960, p. 186). The improvement reportedly increases the unit's speed from a maximum of 85 to 150 containers per minute. The machine will handle labels from "postage stamp size" to 6 by 7 in., the supplier notes. For additional data on the machine, contact MRM Co., 191-3 Berry St., Brooklyn.

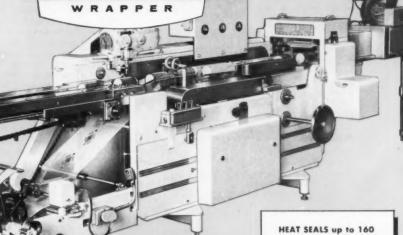
Wrapping machines and transfer labeler

A modified version of Oliver Machinery's #899 automatic soft-film wrapping machine (See "Film Wrapper and Label Imprinter," Modern Packaging, May, 1960, p. 154) will be shown by the firm at the Machinery Show. The unit, available in six models capable of handling various size packages at speeds from 20 to 70 per minute, has been modified to handle many of the recently introduced films, the supplier says, Wrapping films as thin as 1-mil polyethylene can now be handled, according to the supplier. Also being shown is a semi-automatic wrapper (#898) for conventional heat-scalable films. Fast change-over, wide package-size capacity and easy set-up are reported to be combined with low machine cost. It is suggested for low-



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The versatile FMC Campbell Wrapper wraps and seals with Poly, Shrink Films and all other packaging materials

Faster - and at Less Cost!.

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Automatically wraps, seals and delivers products of every description at high speeds without static or heat sealing problems -

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Typical products packaged in Poly and Shrink Films on an FMC Campbell Wrapper.



Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION **FMC Packaging Machinery Division**

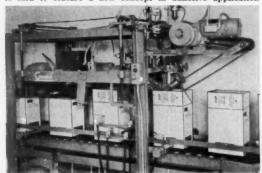
Hudson-Sharp Machine Company 1201 MAIN STREET, GREEN BAY, WISCONSIN

Equipment & Materials [Continued]

speed operations. A new #886 vacuum head transfer labeler which is said to offer precision label placement (within plus or minus 1/32 in.), high speed (up to 180 per minute), simple operation and maintenance and wide label size range (up to 3 by 5 in.) will also be shown. It is reported to be designed for soft films and cellophane. It is intended for use on continuous paper feed wrappers, bag-making machines and pouch formers. However, it can be used on continuous-motion package conveyor lines, cartoners or in most situations where a label must be applied after packaging, the supplier notes. Oliver Machinery Co., Grand Rapids 2, Mich.

New compact case sealer

Visitors to General Corrugated Machinery's booth at the Machinery Show will be able to see the company's new Mighty Midget case sealer. Designated Model 950, the unit is said to feature a new concept in adhesive application



that allows the machine to index cases, close the top flaps and complete the sealing operation on average-size cases at speeds of up to 50 per minute. However, its over-all length (including compression) is only nine feet, the supplier notes. The sealer's high speed is said to be made possible by the use of belts to feed the cases through the machine, and belt closing for the flaps. General Corrugated Machinery Co., Palisades Park, N. J.

Miniature imprinting attachment

Among the many items on display in the Gottscho booth at the Machinery Show will be a new Model T Wrapaprinta dry-process imprinting attachment for wrapping, bag-making and pouch-forming machines. It is designed for imprinting hard-to-print flexible packaging materials. According to the supplier, it makes rubproof imprints from colored leaf in ribbon form, Adolph Gottscho, Inc., Hillside, N. J.

Low-cost ice-cream-bar bagger

Anderson Bros. is exhibiting at the Machinery Show its Model 134 bagging machine for ice-cream bars, ice-cream-on-a-stick and similar items. The unit is portable in size and weighs only 22 lbs. Its bag-trough will hold up to 200 bags, which can range in size from 5¾ by 2¾ in. to 7½ by 5 in. The air blower for opening the bags is equipped with a replaceable filter. The unit is said to be easily and quickly adjustable. It reportedly eliminates unnecessary motions on the part of the operator and gives faster and more sanitary bagging. Long, trouble-free service as well as low initial cost are claimed by the supplier. Anderson Bros. Mfg. Co., Rockford, Ill.

Narrow-width flexographic end printer

Heinrich Equipment will have on display at the Machinery Show a new Lilliput-62 narrow-width flexographic end printer which features a two-station unwinder and friction rewinder, a slitter and an overhead drying system. The company will also exhibit a group of new-style handle bags produced on its Model T-1441 handle forming and gluing machine. Additional information is available from Heinrich Equipment Corp., 111 Eight Ave., New York 11.

Web tension-control unit

Continuous control of web tension in printing and processing film, paper and fabrics is said to be a simple and automatic action with Dusenbery Co.'s new Auto-Tensioneer web controller. To be shown at the Machinery Show, the unit is said to be extremely versatile. It can be installed at the unwind or the rewind and either a "dead" or a "live" sensing roll may be used. Web tension as measured by the sensing roll is relayed through a pair of load cells to automatic controls. These then operate a servo-valve, which adjusts the brake up or down with pneumatic pressure to give the exact web tension desired, according to the supplier's data. John Dusenbery Co., Clifton, N. J.

Compact, automatic underweight rejector

A compact, automatic under weight-package rejector is new from Illumitronic Systems Corp. To be on display at the Machinery Show, the unit is designed to detect missing components or underfill in closed package units. Designated Model UWR-1, it will handle closed packages in a weight range up to seven pounds. The equipment is reported to accomplish 100% rejection of all units under a predetermined weight, within an accuracy tolerance established by line speeds and product characteristics. As the package flow moves across the machine, a flipper reject mechanism discharges underweight units off the carrier belt. Illumitronic Systems Corp., Sunnyvale, Calif.

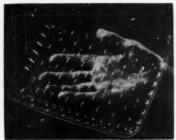
Redesigned drive for turret winder

The Hobbs Model 2CTHM75-DCS cantilevered turret winder with redesigned index drive will be shown at the Machinery Show this month. The unit is especially designed for use with film-extrusion lines; also for packaging field applications where webs up to 24-in. wide are processed. The new tension-control Vers-A-Wind index is available in a wide range of sizes and types, the supplier notes. They are reported to offer a wide range of speeds, controlled tension and accuracy in web-winding operations. Hobbs Mfg. Co., Worcester, Mass.

Polystyrene self-selection meat tray

The buge (seven billion units annually) market for selfselection meat trays gets an interesting new entry as Dobeckmun introduces a transparent plastic tray, vacuum

formed from polystyrene, that is reported to be compatible with conventional heat-seal wrapping machinery. Most significant feature of the plastic tray is its transparency, which permits careful shoppers to see both sides of a cut of



pre-packaged meat before purchasing it. The see-through tray's "waffle" design is reported to offer maximum rigidity and machinability. Other advantages cited for the plastic meat tray include: less bulk, for savings in transport and warehousing space; elimination of meat-juice absorption, and superior performance on heat-seal overwrapping machinery (the trays can be overwrapped on machinery running at a heat-seal temperature of 325 deg. F., says the supplier. Current cost of the tray is said to be two cents higher than that of molded-pulp trays, but inventory-space and film-overwrap savings (about 1 in. in each direction) make costs comparable, says The Dobeckmun Co., Div. The Dow Chemical Co., 3301 Monroe Ave., Cleveland 13.

Chemically impregnated containerboard

DuraTron, a chemically impregnated board designed for use in containers, boxes, trays and the like is being offered by Pac-Tron Inc. The board is reported to be low in initial cost and to be re-usable. Light and strong, the treated board is said to comply with existing F&DA regulations. The supplier is offering a complete line of material han-



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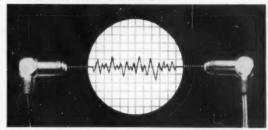
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Equipment & Materials [Continued]

dling containers made from the newly developed board for processing, shipping, packing and storing foods and drugs. The material is non-toxic and does not contain sulphur or other corrosive chemicals. The treated board will not absorb moisture or odors and is unaffected by age or wide temperature variations, according to the supplier. Reportedly, the chemical impregnation increases the basic strength of the original board six times while only adding 3% to its weight. Pac-Tron Inc., Waltham, Mass.

Low-molecular-weight polypropylene

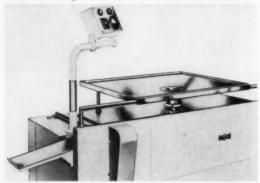


Eastman Chemical Products has developed an amorphous polypropylene of low molecular weight. It is currently available in two grades one, a tacky elastomer; the other, similar in consistency to moderately heavy grease. The resin is decribed as sticky, stretchable, easily melted and soluble in most aromatic and aliphatic solvents. It is compatible with a

number of other resins and with most waxes, the supplier notes. Preliminary evaluations are reported to have shown the material to be of promise for use in hot-melt adhesive blends for laminating and sealing. The tacky elastomer type is said to have imparted flexibility to olefin waxes and resins. Eastman Chemical Products, Inc., Kingsport, Tenn.

Portioning machine for foods

New from Arenco is a portioning machine which accurately fills, weighs and checkweighs food products during canning or cartoning. The unit is said to be especially designed for such items as meatballs, goulash, fish filets, chops, shrimps and like items. An important feature of the machine—designated Model VEK—is the "memory" device which checkweighs each filled can or carton and diverts



those that are under- or over-filled. Since this is accomplished before the cans are sealed, the diverted cans are easily corrected at a separate station, the supplier notes. The unit operates at about 15 cans or cartons per minute. It has a weighing instrument mounted in front of the operator which registers the amount of product in the filling pipe and tells the operator how much more is needed to get the correct portion. After the extra quantity is added, the filling pipe closes, the container is filled, automatically removed and replaced by an empty container. Contact Arenco Machine Co., 25 W. 43 St., New York 36.

Sealed, reclosable bacon package

Riegel is marketing a rectangular paperboard bacon package, called Riegel-Seal, that is formed and fully sealed on automatic machinery. It is made from solid bleached cartonboard and has a cellophane window for product visibility. Slices of bacon are removed from the carton by lifting the specially sealed flap and peeling off the required slices. The unused slices may be re-sealed by snapping the flap back in place. According to the supplier, for 80% of all packers the new sealed package represents no increase in cost, Further information is available from Riegel Paper Corp., 260 Madison Ave., New York 16.

New low-density blow-molding resin

Strong blow-molded bottles for household chemicals, cosmetics and drinkable liquids are among the suggested end uses for U.S.I.'s new low-density (0.919) polyethylene resin. Designated Petrothene 225-2, the resin is said to produce blow-molded containers that excell in toughness and stress-crack resistance, while exhibiting good low-temperature flexibility. The containers also have maximum weld-line strength and good gauge uniformity at the parting line, according to the company. The resin is reported to offer blow molders good processability characteristics, including low odor and smoke during molding and easy pigmentation. Single or multi-color printing can be added to the finished items after standard heat or electronic treatment. For details, contact U. S. Industrial Chemicals Co., 99 Park Ave., New York 16.

Labor-saving header bag

A new type of header bag, supplied with a printed paperboard header already attached, is reported by its supplier—

Plastic Packaging labor-saving shortcuts and reduced packaging costs. Available under the trade name Label-On, the bag can be loaded and sealed in two steps, without stapling or double handling, according to the company. Reportedly, no expensive machinery or skilled labor is re-



quired. The pre-attached header is interleaved between the polyethylene bag walls to provide a flap for "asy opening and loading—either by hand or machinery. Closure is by jaw or rotary heat seal. Bags with gusseted bottoms can be supplied if desired. The bag is constructed in such a way as to prevent air from being trapped in the bag regardless of the sealing method used, eliminating the need for vent holes in the bag, the supplier notes. The custom-designed headers can be printed in up to four colors. Plastic Packaging Co., 2035 W. Charleston St., Chicago 47.

Automatic bacon-wrapping machine

The sealing of up to 60 one-pound bacon packages per minute in a continuous-motion operation is said to be pos sible on Bartelt's new automatic bacon-wrapping unit. The 14-ft.-long unit produces economical and reportedly superior seals by activating the adhesive coating on the bacon board by heating. After shingled bacon strips are laid on the front cover of the package and the back is folded over, the package is hand-fed into the machine, folded edge forward. The sides of the package are pre-heated to activate the adhesive coating. The seal areas then pass between band sealers. Next, the package is automatically turned 90 degrees and the top flap is folded under, pre-heated and sealed in the same fashion as the sides, after which the package is discharged. Package size can range from 7% to 9 in. in width and from 10 to 13 in. in length. Contact Bartelt Engineering Co., Rockford, Ill.



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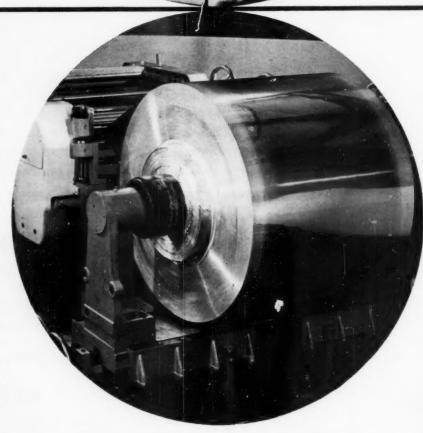
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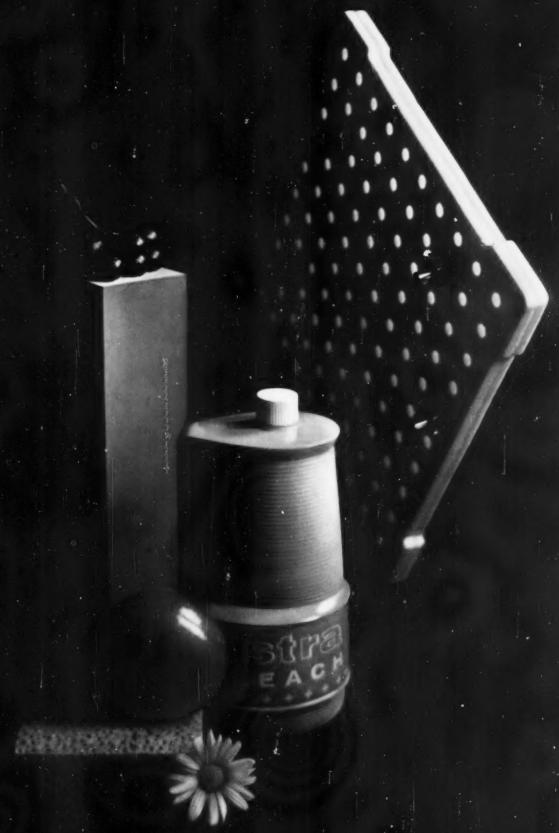
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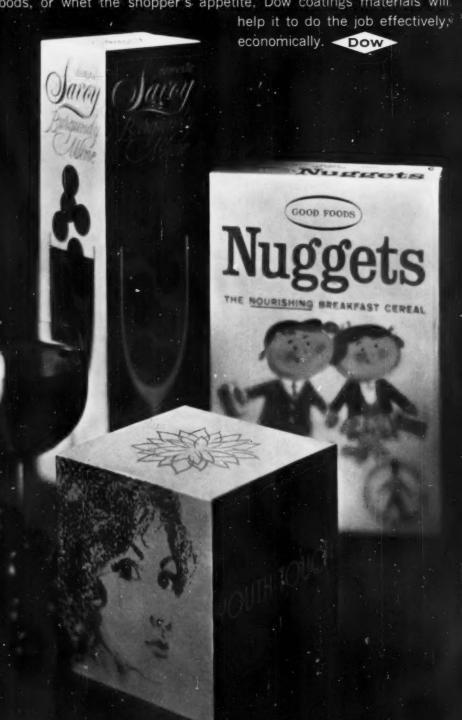




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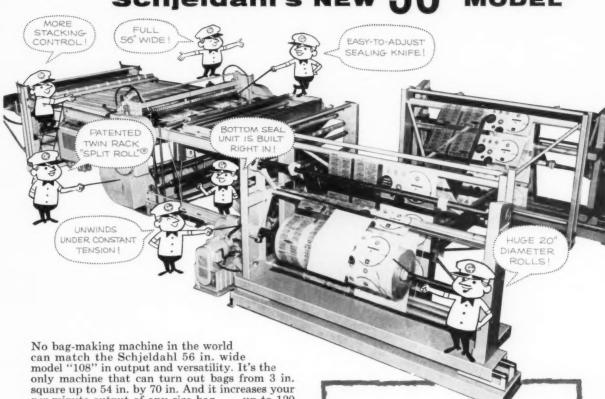
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PATENTS DIGEST

This digest includes each month a brief summary of the more important current patents which are of special interest to all packagers.* Edited by H. A. Levey.

Carton-Handling Device, William Wilson Herrick (to Pitney-Bowes, Inc., Stamford, Conn., a corporation of Delaware). U.S. 2,994,173, August 1. A device for operating upon cartons to open a releasably closed side wall thereof having free ends, said device comprising a support, including means for guiding said cartons during movement therealong, with said side wall exposed.

High-Speed Carton-Handling Apparatus, Wickliffe Jones (to R. A. Jones & Co., Inc., Covington, Ky., a corporation of Kentucky). U.S. 2,994,253, August 1. An apparatus for transferring cartons to a cartoning machine comprising an elongated carton magazine having a conveyor belt arranged to support a pack of cartons and frictionally advance the same and follower means engagable with an upstream end of said pack.

Package, Mycr S. Selby and Milton A. How, Jr., (to W. R. Grace & Co., Cambridge, Mass., a corporation of Connecticut). U.S. 2,994,424, August 1. A package for storing cut flowers, plants and the like comprising a tubular length of plastic film, said film characterized by a low moisture vapor transmission rate, a low oxygen permeability, and a high carbon dioxide permeability.

Package, Harry M. Honeycutt, Barrington, Ill. U.S. 2,994,425, August 1. A packaging arrangement comprising a relay having generally opposed end portions, said end portions comprising critical switch and actuator surfaces and non-critical coil and frame surfaces.

Carrier and Carrier Package, Donald L. Beisecker and Denver C. Hamman (to Illinois Tool Works, Chicago, Ill., a corporation of Illinois). U.S. 2,994,426, August 1. A carrier for carrying a plurality of containers or the like in depending side-by-side and substantially abutting and parallel relation.

Display Package, Thomas C. Mills (to American-Marietta Co., Chicago, a corporation of Illinois). U.S. 2,994,427, August 1. A pre-packaged dust mop comprising a dust mop head and body a swivel connector, and a handle affixed to said swivel connector, a blister-type top cover with a centrally disposed orifice over the upper face of said mop head and body with the handle and swivel connector protruding through the abovementioned orifice.

Decorated Can Body, Joseph S. Crowe (to American Can Co., New York, a corporation of New Jersey). U.S. 2, 994,454, August 1. In combination, a high-strength sheet metal can body having a metallically bonded side seam and a decorative coating of predetermined thickness which extends over substantially the entire outer surface of the body, with the exception of a narrow zone around the side seam.

Metallic Container, Heinz B. Arnold (to General Mills, Inc., Minneapolis, a corporation of Delaware). U.S. 2,994,-

455, August 1. A metallic container having seams, said seams being bonded by a cured resinous composition.

Ice Cream Containers, Don B. Kauffeld (to Foils Packaging Corp., Cincinnati, a corporation of Ohio). U.S. 2,994,465, August 1. A container comprising a body blank having body panels folded along longitudinal bend lines and joined along a longitudinal seam to form a hollow polygonal body and having at least one end closed by an end blank.

Flat-Bag Packaging Machine, Paul Gerhard Klar Munich, Germany. U.S. 2,994,996, August 8. A packaging machine for the production, filling and tagging of bags for extractable and dissolvable materials, comprising a bagging assembly having bag material supply means, bag-forming means, bag-filling means, and bag-sealing means.

Package with Interlocking Keys, Clement Pease (to Plax Corp., Bloomfield, Conn., a corporation of Delaware). U.S. 2,995,269, August 8. A deformable receptacle and a cover therefor comprising a receptacle having side walls provided with perimetrically spaced tenons extending downwardly from their upper edges along the inner surfaces.

Pressure Spray Dispensing Container and Method of Closing Same, John Henchert (to Continental Can Co., New York, a corporation of New York). U.S. 2,995,270, August 8. In a container of the type intended to be internally pressurized, a body having an open upper end defined by an integral, outwardly turned, closed bead, a closure for said end having a downwardly open channel embracing said bead.

Shipping Container with Liner, John Jesinghaus (to Container Corp., of America, Chicago, a corporation of Delaware). U.S. 2,995,288, August 8. A container for packing and shipping fragile articles comprising, a rectilinear outer body with a plurality of hingedly interconnected side walls and a pair of end walls.

Container Manufacturing, Harry E. Hines (to Consolidated Paper Co., Monroe, Mich., a corporation of Mich.). U.S. 2,995,755, August 15. In a machine for fastening overlapped edges of a folded collapsed container blank to form a seam, the improvement comprising: a conveyor for intermittently moving said blanks through said machine, seam fastening means on the machine, a first movable means for aligning said overlapped edges for said seam before forming said seam.

Wrapping Machines, Leonard Brook and Rowland Walker (to The Forgrove Machinery Co., Ltd., Leeds, Yorkshire, England, a company of Great Britain). U.S. 2,995,878, August 15. A wrapping machine comprising a conveyor with article-receiving pockets for feeding articles in succession to a loading station, means at the loading station

for transferring the articles in succession from said pockets and wrapper feed mechanism for feeding wrappers in succession to the machine.

Container-Closing Apparatus, Herbert A. Barnby (to Owens-Illinois Glass Co., Toledo, a corporation of Ohio). U.S. 2,995,882, August 15. In combination, means for conveying bottles in normal upright position along a horizontal path past decapping, filling and recapping stations in that order, the bottles having readily removable partially formed skirted sheet metal closure caps closing them prior to reaching the decapping station.

Means for Positioning Objects While Traveling Continuously During Packaging, Hermond G. Gentry (to The Mead Corp., Dayton, O., a corporation of Ohio). U.S. 2,996,169, August 15. Means for positioning objects while traveling continually during packaging, said means comprising a sprocket chain arranged with a reach extending over the traveling path along which said objects are to be positioned and a series of relatively heavy positioning blocks fixed in regularly spaced relation on said spocket chain.

Package, Reavis C. Sproull and Clarence C. Cosby, Jr. (to Philip Morris Inc., New York, a corporation of Virginia). U.S. 2,996,177, August 15. In combination with a package having a wrapper thereon, a first strip of adhesive tape attached to the outer surface of said wrapper and at least one coin attached to said strip of tape between it and the wrapper.

Metered Dispensing Carton for Semi-Free-Flowing and Free-Flowing Powdery and Granular Solids, Stan M. Silver New York. U.S. 2,996,224, August 15. A metered dispensing container of the character described, comprising a receptacle having top and bottom walls and a connecting upright wall, said receptacle having an outlet opening defined in the upper portion.

Milk Container Construction, Jonathan B. Craig and Vincent P. Petrucelli (to Socony Mobil Oil Co., New York, a corporation of New York). U.S. 2, 996,233, August 15. A milk container formed from a single sheet of material with parallel sets of folding creases, extending perpendicularly to each other in intersecting, relationship, defining a central rectangular portion and folded along certain of said parallel creases to provide four side walls.

Triangular Cartons, Leonard A. Wheeler, Port Credit, Ontario, Canada U.S. 2,996,234, August 15. A carton blank comprising a sheet of paperboard or the like cut and scored to provide first, second and third side wall portions in seriate side-by-side relation, a glue tab integral with one of said first and third side wall portions and arranged to be secured to the other of said first and

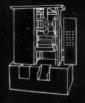
*For more detailed information, copies of patents are available from the U. S. Patent Office, Washington 25, D. C., at 25 cents each, payable in currency, money order or certified check. Postage stamps are not acceptable.



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50 bags per minute



Add conversion equipment which costs only 33% of the basic machine

With an EXPAND-O-MATIC you can boost production from 50 to 200 bags per minute



200 bags per minute



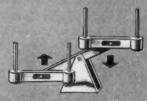
With the new Hayssen EXPAND-O-MATIC, you buy only the production capacity you need to meet your present packaging requirements. As your needs increase, you can quickly, easily and economically add on to a basic EXPAND-O-MATIC machine and double, triple, even quadruple its production - at a fraction of the cost of the basic machine. EXPAND-O-MATICS range from single tube models with production rates to 50 bags per min. to double tube models with production rates of up to 200 bags per min. Each machine packages a wide variety of products in all types of heat sealable papers, films

Hayssen machine mounted scale, auger, pump or volu-

Investigate the many outstanding features of the new Hayssen EXPAND-O-MATIC - the bag form, fill, seal machine that can grow with your production needs. Check the yellow pages for your local distributor or write for descriptive literature.

Exclusively Manufacturers of Packaging Machines Since 1910

MANUFACTURING COMPANY . SHEBOYGAN, WISCONSIN

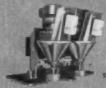


NEW DRIVE MECHANISM

Heart of the EXPAND-O-MATIC packaging machine is a drive mechanism that's based on an entirely new design concept — the drive motor powers a rocker arm which in turn raises and lowers two draw bars. The weight of one draw bar is used to counterbalance the other draw bar.



Available in combinations of multiple heads, single and double bucket operation and dribble and bulk feeds



AUGER FEED design for non free-flowing products combines ex tremely accurate measurement and high oper



VOLUMETRIC FEED and simple, quick



LIQUID PUMP FEED meters all forms of liquid and suspended products regardless of viscosity. Non-dripping valves of the Hayssen pumps assure prod-uct free package seals.





Enjoy a new dimension in merchandising flexibility and competitive advantage. Print price, premium, combination or other special offers on your package whenever good sales strategy dictates. Inexpensive "ROLA-PRINTER" fits any wrapping, bagmaking, pouch or bundling machine . . . automatically imprints your message as product is packaged. No waiting for printer to make deliv-

ery; use present supply of plain or printed packaging material. Practical for long or short runs-for "split-run" testing of differ-ent offers in different markets. Thousands of "ROLAPRINTERS" now

in use for pre-pricing, coding, imprinting weights, sizes, varieties, block-outs, even complete designs.

Write for "Bulletin RIN-8"

First and foremost in automatic production-line CODING MARKING and IMPRINTING machines



GOTTSCHO Dept. A HILLSIDE 5, N. J.

Patents [Continued]

third side wall portions, when the carton is assembled.

Package, Charles H. Turpin (to The Pillsbury Co., Minneapolis, a corpora-tion of Delaware). U.S. 2,996,235, Au-gust 15. A leakproof, greaseproof package comprising a rectangular container body formed of a rear wall, a front wall, and two end walls; a flap hinged to each of said rear and front walls and a foreshortened tab hinged to each of said end walls

Food Container, Chalmers W. Barr (to Riegel Paper Corp., New York, a corporation of Delaware). U.S. 2,996,236, August 15. A bacon wrapper formed from a single sheet of paperboard, cut and scored to define a closure and capable of retaining a pound of sliced bacon, comprising a rectangular base and a rectangular flap which is in side-by-side relationship to said base when said paperboard is flat.

Collapsible Container, Harry E. Hines (to Consolidated Paper Co., Monroe, Mich., a corporation of Michigan). U.S. Mich., a corporation of Michigan). U.S. 2,996,237, August 15. A paper container comprising a drum having a side wall having a lateral annular continuous internal flange on one end thereof, a cover disc extending across said one end and having a peripheral edge portion engaged with a side of said flange.

Pasted Container, Robert E. Linde (to Crown Zellerbach Corp., San Francisco, a corporation of Nevada). U.S. 2,996,-238, August 15. An improved pasted fibrous container for packaging wax, rubber, asphalt and other tacky materials, the outer face of said container having a release coating.

Dispensing Carton, Edward B. Garman to Owens-Illinois Glass Co., Toledo, a corporation of Ohio). U.S. 2,996,344, August 15. A dispensing carton for cylindrical articles, comprising an outer receptacle having pairs of opposed end and side walls, said end walls being provided with substantially full width, vertically spaced, horizontal slots in staggered relationship.

Packaging Machine, Alfred L. Bergeron and Edward Thornton Walter (to Pneumatic Scale Corp., Ltd., Quincy, Mass., a corporation of Massachusetts). U.S. 2,996,855, August 22. In a packaging machine of the character deaging machine of the character de-scribed, in combination, conveying means for continuously advancing a filled lined carton, means for folding and sealing the mouth of the lining during the continuous movement of the carton and a folding and sealing head movable in alignment with the carton and having cooperating folding elements for forming bellows folds in the end walls of the lining mouth.

Pouch Area Marker for Pouch Packaging Machines, Franklin M. Willbrandt (to Battle Creek Packaging Machines, Inc., Battle Creek, Mich.) U.S. 2,996,860, August 22. In a wrapping machine having a loading way with an in feed belt triin to the control of the control in-feed belt trained therealong, supports for supply rolls positioned to deliver upper and lower wrapper webs to be-hind and ahead of said belt respectively with the lower web resting on said belt.

Container Closing Apparatus, John Hohl and George L. Webster, (to Owens-Illinois Glass Co., Toledo, a cor-

KAUTEX



Blow Molding
Machines for
hollow articles
up to 260.000 cc.





KAUTEX Method Known Throughout The World

Easy adjusting – easy handling – easy changing of molds
Horizontal and vertical stroke limitation
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Minimum non-productive times ensure up to 2.000 cycles per hour
One blow mold, yet up to 3 cavities
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GIFT PACKAGING FOR ALL OCCASIONS

...or—packaging to protect product, stop shoppers, prevent contamination. Whatever your package's primary and secondary requirements are, you can be sure of getting what you need through the complete packaging service of KVP Sutherland. Better design—a fully-staffed design department is on call to work with you. Functional protection—an un-

matched research and engineering staff fits the packaging to the need. Costs—KVP Sutherland works with you to keep them down. Many of the nation's best-selling products now go to market in creative packaging by KVP Sutherland—and sell the better for it. May we give you further details on how this service can help you.



... the paper people

KVP SUTHERLAND PAPER COMPANY . KALAMAZOO, MICHIGAN . 18 plants in the United States and Canada to serve you

poration of Ohio). U.S. 2,996,865, August 22. In apparatus for affixing a screw-threaded, skirted closure cap to a jar having an upstanding externally screw-threaded mouth-forming neck, a horizontal continuously moving conveyor for supporting the jar in an upright position and advancing it through cap pick-up and cap-applying zones.

Packaging Machine, Sidney Gilbert, Miami Beach 40, Fla. U.S. 2,996,866, August 22. A sealing machine comprising a base, a sealer mounted upon said base and adapted to be moved radially inwardly and outwardly, a tray support mounted upon said base so as to be vertically movable and means normally biasing said tray support for location above the level of said sealer.

Carton-Erecting Machine, Albert Hulley (to Riegel Paper Corp., New York, a corporation of Delaware). U.S. 2,996,960, August 22. A machine for erecting collapsible cartons of the type having front and rear side walls foldably connected to the respective outer sides of bottom sections and collapsing inwardly into the V-shape between the heretofor mentioned side walls.

Apparatus for Arranging and Stacking Containers, Robert V. Burt (to The Procter & Gamble Co., Cincinnati, a corporation of Ohio). U.S. 2,997,187, August 22. A device for arranging and stacking containers comprising container-accumulating means and conveyor means for receiving containers from said accumulating means and advancing them in a path of travel.

Collapsible Double-Walled Cartons, Marshall I. Williamson (to Federal Paper Board Co., Inc., Bogota, N.J., a corporation of New York). U.S. 2, 997,220, August 22. A one-piece, fibrous sheet blank designed when assembled and erected to form a double-walled article-cushioning carton having an inner sleeve interiorly of and in spaced relation to a protective outer sleeve.

Machine for Erecting a Leakproof Container, Frederick J. Erwin, Jr. and William E. May (to Crown Zellerbach Corp., San Francisco, a corporation of Nevada). U.S. 2,977,717, August 29. A machine for erecting a container, said machine comprising a stitcher and a mandrel, said stitcher having a stitching head and an anvil thereunder and said mandrel being movable toward and away from said anvil.

Cigarette-Packaging Machine, Valter A. Ahibor (to Arenco Aktiebolag, Stockholm, Sweden, a Swedish joint-stock company). U.S. 2,997,828, August 29. A cigarette-packaging machine comprising a supply container for the cigarettes, a feeding device for feeding cigarettes into said supply container, means for feeding cigarettes from said supply container to a packaging mechanism, said supply container being comprised of at least one movable bounding member.

Apparatus for Loading Containers, Ralph H. Johnson (to The Quaker Oats Co., Chicago, a corporation of New Jersey). U.S. 2,997,829, August 29. Boxloading apparatus comprising a frame, a first conveyor for delivery of an empty box and means adjacent the first conveyor for positioning a longitudinally moving box at a predetermined loca-



PACKAGING FOR POSITIVE PROTECTION

This brilliant new FAB package is now being produced by KVP Sutherland. Its bold use of fluorescent color gives greater impact on supermarket shelves ...the kind of impact that means sales. Colgate-Palmolive designed it—and KVP Sutherland helped with the task of creating a printing surface that (1) would accept fluorescent inks perfectly and (2) protect the product.

The happy result you see above. And it is just one of many examples of KVP Sutherland's ability to create superior packaging. An ability that stems from complete control every step of the way from wood pulp to finished product.



.. the paper people

Patents [Continued]

tion thereon and stopping said conveyor when said box is at said location.

Manually Operable Capper for Cottage-Cheese Cartons and the Like, John Harrison Ludwig (to The Ludwig Co., Rochester, N.Y., a corporation of New York). U.S. 2,997,832, August 29. A carton-capping apparatus comprising a hopper adapted to hold a plurality of caps in a stack, releasable attachments movably mounted on said hopper for retaining the caps in the hopper, a pivoted transfer member and a carton support.

Folding Box Forming Machine, Siguard Johannes Hoyrup (to Baljak Corp., Wilmington, Del., a corporation of Delaware). U.S. 2,997,928, August 29. A box forming machine comprising in combination; a die, a plunger movable into and out of said die, reciprocating drive means and a pneumatic coupling between said plunger and said drive means.

Device for Forming and Locking Folding Box Corners, Chester J. Pierce, Jr. (to Baljak Corp., Wilmington, Del., a corporation of Delaware). U.S. 2,997,930, August 29. A box folding and locking device particularly for folding and locking the corners of a folding box having a bottom, sides and a corner lock flap on a certain side having a tab thereon insertable into and aperture in another box side.

Container-Making Apparatus and Method, William Binford Elam (to American Can Co., New York, a corporation of New Jersey). U.S. 2,997, 931, August 29. A machine for forming spirally wound pull-string containers, comprising a mandrel, means for wrapping around said mandrel an inner web which carries on it a plurality of longitudinally disposed pull-strings having free ends dangling therefrom to form said inner web into a tube wherein the string ends dangle from the outer surface of the tube.

Can-Filling Apparatus, David William Bingham, Brighton, Victoria, Australia, U.S. 2,998,037, August 29. Improved can-filling apparatus of the kind indicated, comprising a stationary main supporting frame carrying a bulk storage vessel on which several circumferentially spaced filling heads are mounted so as to form an assembly which is adapted to rotate bodily in relation to said supporting frame.

Sealing Means for Re-usable Packages, Earl S. Tupper (to Rexall Drug & Chemical Co., Los Angeles, a corporation of Delaware). U.S. 2,998,158, August 29. A heat-sealable package of resilient locally deformable thermoplastic material, including polyethylene, styrenes and vinyls, consisting of a container and an engaging cover.

Lined Container for Liquids and Liner Therefor, Raymond E. Jacke (to Reynolds Metals Co., Richmond, Va., a corporation of Delaware). U.S. 2.998,178, August 29. In combination with a container, a laminated heat-sealable liner, said liner having a layer of non-porous material on a first side adapted to contact the contents of said container and being provided with perforations passing therethrough.

Self-Sealing Container, D. W. Dehoney, Jr. (to Crown Zellerbach Corp., San Francisco, a corporation of Nevada). U.S. 2,998,180, August 29. A self-sealing container comprising a plurality of interconnected side walls having upper and lower edges; top closure flaps hingedly connected to said upper edges and bottom closure flaps hingedly connected to said lower edges.

Expandable Container, Edward T. Chasolen, Ridgewood, N.J. U.S. 2,998,181, August 29. An expandable container assembly comprising a plurality of box-like members each having a bottom, end walls and side walls, and an inverted U-shaped handle of semirigid material extending upwardly from each of a pair of opposed walls.

Container, Walter C. George (to Crown Zellerbach Corp., San Francisco, a corporation of Nevada). U.S. 2,998,182, August 29. A paperboard bag-like container being collapsible to substantially flat condition for shipping and when erected having an elongated upper body portion and a lower portion of polygonal formation; the container having leak-proof closure means at the polygonal end portion.

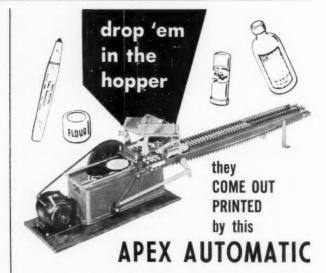
Composite Container, Shy Rosen and Harry Rosenfeld (to Milprint, Inc., Milwaukee, a corporation of Delaware). U.S. 2,998,183, August 29. A composite container comprising a main body of flexible thermoplastic material which is resistant to tearing and a band of comparatively easily tearable material heat-sealed around said body and extending therefrom to form a normally open collar through which a commodity may be inserted.



pression testers, drop testers,

quick release hooks.

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Print one or two color decorations, trade marks, illustrations on almost any surface — plastic, glass, metal, wood, cardboard, etc. Automatic hopper feed and conveyor take-off. No skill required to operate! 2500 pieces per hour. Prints one or more lines at the same time on a portion of, or the complete surface. Rapidly adjustable to different sizes, Special machines to order.

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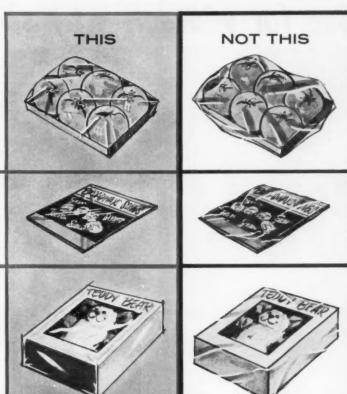
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OVER 40 STANDARD DECORATING & MARKING MACHINES In America's Largest and Most Complete Selection

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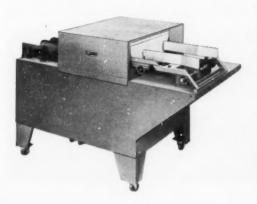
that keeps its

"JUST-ARRIVED" LOOK



WELDOTRON SHRINK PACKAGING EQUIPMENT





More and more manufacturers are turning to shrink packaging in order to produce skin-tight, crystal-clear contour packages for a wide variety of different size and shape products. A full range of shrink films is currently available to suit every packaging need - And Weldotron has developed a line of equipment to seal and shrink these films. It gives you packages that protect and show off your product, maintaining a "just arrived" appearance.

WELDOTRON L SEALERS

Our engineers have developed a full line of manual and semi-automatic thermal impulse sealers which, with each stroke, form a complete package from V-folded or single rolls of shrinkable or regular films. These Weldotron impulse sealers are the best type for use with shrinkable films because they heat and cool extremely fast, resulting in clean, strong seals.

WELDOTRON HEAT TUNNELS

When a package, large or small, has been sealed, the Weldotron Heat Tunnel will shrink it to a perfect contour fit because its high velocity recirculating heated air reaches all surfaces evenly. There are thermostatic controls for setting and maintaining exact temperature. Featuring fast, economical, trouble-free operation, the Weldotron Heat Tunnel has variable conveyor speed up to 60 FPM. It has the highest speed available commercially and can be used for all shrinkable films.

For more information on Weldotron shrink packaging equipment, please write today outlining your requirements.



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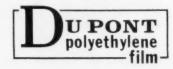
See for yourself why so many packagers

COMPARE Du Pont's new 2 in 1 polyethylene with the film you are now using

Is yours just as clear? Then test for strength. Or perhaps yours is just as strong. But is it as clear? Sure, you can get poly with just one of these properties...but Du Pont's 2 in 1 polyethylene bag film combines both crystal clarity and toughness. Compare. You'll see why so many leading packagers like Jewel Tea Co. Inc. are now using Du Pont's 2 in 1 polyethylene. Call your Authorized Converter or Du Pont

Representative. E. I. du Pont de Nemours & Co. (Inc.), Film Dept., Wilmington 98, Del.



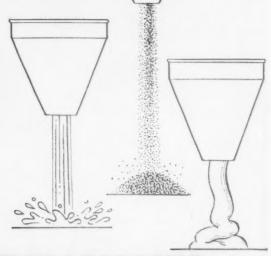


are specifying this polyethylene . . .



In filling and packaging equipment..

THERE'S ONLY ONE THING FINER THAN SWEDISH CRAFTSMANSHIP



That's Swedish craftsmanship plus prompt U.S. service! And that's what you get in each and every Arenco machine. Performance that is second to none, backed by the service only fully stocked warehouses and

skilled specialists can provide. For complete details, write Arenco: one of the most dependable names in filling, packaging, proportioning, closing, sealing and checkweighing equipment.



VUF automatically feeds and opens as many as 2100 bags an hour, can serve three combination weighers or portioning machines at one time. Synchronized controls maintain best filling speed, eliminating no-fills or double portioning of hard-to-handle materials. Opens each bag before filling. Handles sizes from 21/2"-61/4" wide to 85/8"-151/8" high. Quick changeover for biscuits, breakfastcerealsor granular products.



GAB automatic tube filling and closing machine packages liquids, semi-liquids and stiff pastes at speeds as high as 3000 an hour. Complete filling, with no air bubbles or pockets. "Notube, no-fill" efficiency. Takes tubes up to 11/2" in dia., 71/4' in length, 134" x 8" on special order. Tube-cleaning, captightening, blow-off and coding device standard equipment.



GAN, "big brother" of the GAB, fills and closes up to 7000 units an hour with one operator. Automatic tube feed, photo electric tube register and dual filling nozzles. Tube discharge can be tailored to virtually any cartonning set-up. Handles tube diameters up to 1½", lengths to 7¼". Like GAB, fast changeover from size to size, product to product.



GAP heat sealer works well in combination with the GAB .. enables you to seal perfectly packages of either polyethylene or p.v.c. plastic. Easy to hook up to the parent machine. And on the GAP, precision thermostats maintain proper sealing temperatures for whichever plastic material you work with, whether production is long-run or short.



ARENCO MACHINE COMPANY

INCORPORATED

25 West 43rd Street, New York 36, N. Y.

Niemand Bros. for

CUSTOM-DESIGNED TUBULAR PACKAGES

SHARI

Niemand Bros. packages are DOERS! They pour, sift, dispense, apply, feed, protect and sell . . . really work for you on the shelf, for your customers at home! Shown here are a few examples of the "LOOK-AT-ME" packages we produce . . . a sampling of the many and varied accounts we service. See how Niemand Bros. employed combinations of advanced paper, plastic and foil techniques in the design and manufacture of these packages to make each a model of self-selling perfection!

A Niemand Bros. practical, attractive and economical package can help promote the personality and function of your product, too. We invite you to consult with our design and development staff without obligation.

SPECIALISTS in glamour, dispenser, telescopic, gooseneck and novelty custom packaging.



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Manufacturers and Designers of Tubular Packaging

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FOR YOUR

INFORMATION

How much is expected of the package designer today with respect to a client's marketing program? Should the design firm offer market research service or should its prime function be creativity, leaving market study to management? To obtain a better understanding of industry viewpoints on these questions, the Package Designers' Council invited to this year's symposium at Silvermine, Conn., a panel of marketing executives and captive designers. The speakers were: Ronald F. Gilrain, marketing director, Hand Tool Div., Stanley Tools; Theodore Montague, Jr., pres., Drake Bakeries, Inc.; Seymour Kent, director of packaging and designing, Lehn & Fink Products Corp., and Vernon Fladager, director of marketing, Bruce Payne & Associates, Inc. J. Gordon Lippincott, Lippincott & Margulies, was moderator. Ernst Ehrman, Ehrman & Reiner, Chairman of PDC's Eastern Chapter, was in charge of symposium arrangements.

The Packaging Institute will have a hospitality suite for members and guests at the Packaging Machinery Show in Detroit Nov. 7-10. Executive Director Charles A. Feld and Technical and Field Service Director James W. Field will be hosts in Booths 154-156. On display will be technical publications, including PI Advisory Service Reports, special reports, periodicals and committee reports. Pl's 1961 activities will be explained and information on services will be available.

After 28 years in New York, the National Fibre Can & Tube Assn. has moved its offices to 1725 I St., N.W., Washington 6, D. C. A major factor in the decision to make the move was said to be the increasing importance of the association's program of cooperation with Federal administrative agencies.

Herbert A. Smith, technical director of The Mead Corp.'s Chillicothe Div., has been appointed gen. chairman of the Testing Div. of the Technical Assn. of the Pulp & Paper Industry.

The American Management Assn. will offer a three-day workshop seminar Feb. 7-9 on "The Job of the Packaging Director." The seminar will be held at the AMA's headquarters in the Hotel Astor in New York. Designated seminar no. 9182-04, it is designed for executives in manufacturing or merchandising companies which are considering the establishment of a director of packaging or are reviewing and reorganizing the packaging-dept. function. For further information, contact AMA at the Hotel Astor, New York 36.

The Lithographers & Printers National Assn. has changed the time and place

of its fall workshop meeting, due to conflict with other meetings. The meeting will be held Nov, 15-17 at the Sherman Hotel in Chicago.

LPNA has also announced that Jan. 5 is the deadline for entries in the 1962 12th Lithographic Awards Competition. There are 52 categories in which items may be entered. These include two new categories for lithography on foil. Judging of the entries is scheduled for the week of Jan 15, in New York. Further details are available from the LPNA headquarters, 597 Fifth Ave., New York 17.

A special report on aqueous foil-laminating adhesives is available from The Borden Chemical Co. The eight-page, 6,000-word report incorporates a discussion of the physics of foil bonding, including mechanical attachment and polar adhesion; required adhesive properties for foil applications, and an analysis of currently used foil adhesives. It also discusses foil adhesive problems and lists recommended solutions. Copies of the report are available without charge from the company, 350 Madison Ave., New York 17.

Milan D. Smith has taken office as exec, v.p. and secy. of the National Canners Assn. He succeeds Carlos Campbell, who took over from the late Frank E. Gorrell, the founding secy. (1907), in

Events

Nov. 1—Gravure Technical Assn., oneday forum, Sheraton-Cleveland Hotel, Cleveland.

Nov. 2-3—Society of Plastics Engineers, North Texas Section, technical conference, "Plastics in Packaging," Sheraton-Dallas Hotel, Dallas. Nov. 6-7—Packaging Institute, Pe-

troleum Packaging Committee, conference, Pick-Fort Shelby, Detroit.
Nov. 7-9—Point of Purchase Advertising Institute, 15th annual symposium, McCormick Place, Chicago.

Nov. 7-10—Packaging Machinery Mfrs. Institute, 4th Machinery Show, Cobo Hall. Detroit.

Nov. 13-14—Society of Packaging & Handling Engineers, 7th annual Eastern industrial packaging and handling show and competition, 5th Regiment Armory, Baltimore.

Nov. 13-16—American Bottlers of Carbonated Beverages, 43rd convention, Civic Auditorium, San Francisco.

Nov. 15-17—Lithographers & Printers National Assn., Fall workshop meeting, Sherman Hotel, Chicago.

Dec. 4-6—10th Annual Aerosol Package Contest (in conjunction with 48th annual meeting of Chemical Specialties Mfrs. Assn.), Roosevelt Hotel, New York.

1945. Mr. Smith has been active in the canning industry since 1941, interrupted only by a three-year period when he served as exec. asst. to former Secy. of Agriculture, Ezra Taft Benson.

Louis Cheskin, director of the Color Research Institute and author of two previous marketing research books is the author of a third book in the series. Published by Liveright Publishing Corp., New York, the book is titled Basis for Marketing Decision through Controlled Motivation Research and deals primarily with the validation of controlled motivation research. The author attempts to show how controlled tests are used for solving marketing and sociological problems. He is pres. of Louis Cheskin Assoc. The book is available at \$5.95.

W. R. Grace Co. has released a 20page, four-color special report on its growing chemical operations. The booklet describes the change that has taken place within the company in the last 10 years. During the past decade the company has changed from a century-old Latin American industrial, trading and shipping firm to a leading U. S. chemical producer. In 1950, more than 95% of the company's earnings came from its traditional enterprises. In 1960, 76% of its earnings came from its chemical operations. Included in the booklet are descriptions and pictures of the firm's role in the packaging of food. It is available on request to W. R. Grace Co., Public Relations Dept., 3 Hanover Sq., New York 4.

The Institute of Food Technologists has issued its first call for nominations for the 1962 Food Technology Industrial Achievement Award. The purpose of the award is to recognize and honor an outstanding food process and/or product which represents a significant advance in the application of food technology to food production and which has been in commercial application for at least six months. Nominations may be made by letter to IFT, 176 W. Adams St., Chicago 3. The award will be presented at the institute's 22nd annual meeting June 10-14.

E. I. du Pont de Nemours & Co. and Phillips Petroleum Co. have agreed upon a settlement of litigation between the two companies over a composition-of-matter patent on high-density polyethylene. The settlement involves an exchange of patent rights. Du Pont is moving to dismiss the suit it filed in June, 1958.

New York's Coliseum will be the setting for the Fifth International Food Congress, to be held Sept. 8-16, 1962. This is the first return of the triennial exhibi-

U.S.I. POLYETHYLENE NEWS

A series of advertisements for plastics and packaging executives by the makers of PETROTHENE® polyethylene resins

NOVEMBER, 1961

. S. Industrial Chemicals Co., Division of National Distillers and Chemical Corporation

99 Park Ave , N Y. 15, N.

Packaging Notes

Laundry-grade polyethylene film is offered along with a choice of two sealing



units and a promotional kit to spur sales. This ultra-clear customized wrap, designed to replace kraft paper, boxes or cellophane, provides such advantages as: fast, foolproof inspection; increased sales appeal; all-weather protection.

CIRCLE (3) ON COUPON

Nuclear thickness gauge using beta radiation is currently available in a new

small size. Measuring only 22 inches long and believed to be the simplest of its type, it will indicate or record thicknesses of sheet materials up to 12 inches wide. Unit is described as "rela-



tively inexpensive . . . extremely useful in the laboratory determination of thickness or density of plastic films, paper, coated materials, and metal foils."

CIRCLE (4) ON COUPON

Diet bar, a new baked dietary food product, is packaged in carbon-dioxide atmosphere in a foil-and-polyethylene wrapper. Standard flavors are chocolate, lemon and spice. Three bars daily reportedly provide 1,248 calories.

CIRCLE (5) ON COUPON

New "form and fill" machine packages candies and IQF foods in polyethylene at speeds up to 150 units per minute. This double-tube machine has separate

drives, permitting either of the two tubes to be operated independently of the other. It produces packages ranging in size from 2" x 3" to 8" x 141/4" and handles polyethylene film or polyethylene coated substrates.



CIRCLE (6) ON COUPON

In-Plant Polyethylene Packaging Racks Up New Gains

Major Savings Reported by Many Manufacturers

In today's tight economy, when opportunity for saving knocks, industry is quick to respond. Consider in-plant polyethylene packaging and the reasons why it's making new inroads in almost every area of industry.

 Polyethylene film offers a price saving over other transparent packaging materials.

The current availability of inexpensive, semi-automatic packaging equipment — which uses slit roll stock instead of ready-made bags — makes it more of a bargain than ever.

• More and more, customers indicate a preference for products neatly wrapped in strong, clear polyethylene film.

in strong, clear polyethylene film.

Typical of low-cost machinery using slit roll stock are the M·A packaging systems. They form bags around products at rates up to 30 per min.; are available with shrink tunnels, other accessories, such as hole punchers for rack packaging and slit perforators for easy package opening.

Some Case Histories

In-plant polyethylene packaging almost invariably results in major savings. Look how installing M·A packaging equipment paid off for manufacturers of:

Frozen steaks — Output tripled, sales rose 50%.

Paper Products — "Produced more secure and durable packages at one-half the cost of another transparent film."

Sportswear — "Virtually sold itself." Diesel filters — Multiple unit cartons replaced by individual packages. Anticipated savings: 50%.

Shirts — Efficiency of packaging operation quadrupled.

Frozen chickens — Less spoilage, more sales when individually shrink-packaged.

Pizzas and tortillas — Packaging rate doubled, costs cut 331/2%.



M • A "Jumbo" provides one-step packaging of extra-large items. A manufacturer currently using it to wrap bolts of cloth says installation made possible "tremendous labor savings, cleaner delivery, added sales appeal."

Bread — Specialty loaves stayed fresh 20% longer than in paper bags.

Magazines — Bagged and sealed at rate of 1,000 per hour. Labor, materials, mailing costs cut up to 50%.

Candy — Peppermint canes, licorice sticks wrapped at two-thirds cost of using another transparent film. Openface boxes shrink-packaged.

Toys — Packaging rate doubled. Now 6-8,000 per day.

On View at PMMI Show

Visitors to the Packaging Manufacturers' Institute Show, Cobo Hall, Detroit, November 7-10, will be able to see the advantages afforded by in-plant polyethylene packaging first hand. M·A models using slit film tubing made from U.S.I. PETROTHENE resins will be demonstrated in Booth 760.

CIRCLE (1) ON COUPON

Polyethylene Window Posters Fold Down to Envelope Size



Open — it's a colorful 3' x 3' sign ready for posing; closed — it fits into a 10" x 12" envelope. And, because it's of lightweight flexibile polyethylene film, this window display piece can be mailed without stiffener at very low cost. A New Jersey firm designs and produces the small billboards in sizes up to 72" x 72".

CIRCLE (2) ON COUPON

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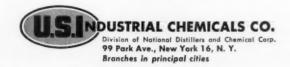
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ethylene coating resins for food packaging applications. Askyour supplier about the superior moisture resistance, greaseproofness, toughness, smoothness of these packaging materials. He'll be glad to show you how they can keep the consumer reaching for your product.



tion to the U. S. since its inception in 1950. Among the seven industry activities to be featured at the congress, geared to the theme, "The Life Line of Humanity—Food From Farm to Table," is packaging. The congress was recently previewed in a featured cover story in This Week Sunday supplement magazine by food editor Clementine Paddleford. Hans J. Wolflisberg, pres., Nestlé Co., is chairman of the event.

The American Standards Assn. has approved a new sectional committee to standardize small containers for petroleum products. The approved project scope includes: terminology, sizes, dimensions and tolerances, methods of measurement, marking and testing. Specifications are to be drawn up only for containers having a volume of less than five gallons.

The Europlastique Trade Fair will be held in Paris May 19-29, 1962. This is the third fair in a five-year program of European plastics and rubber expositions. Exhibits are expected from all over Europe and space is available for exhibits from the U. S. A.—the only non-European nation invited to participate. Further details are available from the Secretariat d'Europlastique, 10 Rue du Mont Thabor, Paris 1, c/o Mr. Paul Thevenin—U. S. Embassy, or from the Trade Development Div., Bureau of Foreign Commerce, Washington 25.

Many aspects of plastics in packaging, including blow molding, film, toxicity problems, blister packaging, processing equipment and printing and decorating, will be discussed at a regional conference of the North Texas Section of the Society of Plastics Engineers. The conference runs Nov. 2-3 in conjunction with the Southwestern Packaging Exhibition Nov. 1-3 at the Sheraton-Dallas Hotel in Dallas. The technical program will number 13 papers and will include a paper on "Packaging Materials and the Food and Drug Act" by S. D. Fine, Dallas district director of the Food & Drug Administration.

The Industrial Designers Institute held its first national symposium at the Somerset Hotel in Boston on Oct. 28. Gerald B, Ewing, v.p. of IDI, was in charge. The symposium followed a two-day session of the 23rd annual meeting of the IDI board of trustees.

At the 13th Dornbirn Textile Fair, The Austrian Institute of Packaging showed for the first time a special exhibition on textile packaging. The exhibition was titled "Rational Packaging of Textiles" and pointed up the importance of packaging to the textile industry.

A paper and packaging-materials seminar was held as a part of the annual convention of the Quartermaster Association at the Atlanta Biltmore Hotel, Atlanta, Ga., Oct. 11-13. The seminar consisted of a discussion of industrywide problems involving specifications, research and engineering.



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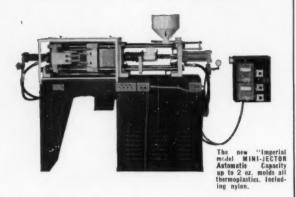
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Action on 'deception'

[Continued from page 129]

Package Designers Council; Roy Zimmerman, president of Independent Grocers Alliance, a large wholesaler and retail-grocers' cooperative (an unidentified representative of Safeway Stores, Inc., also had been invited to testify); Robert L. Andrews of Topco Associates, a private-label packaging firm; Louis Cheskin, director of the Color Research Institute, and Roy King, editor of Food Field Reporter.

The list also might include a management representative from one of the nation's biggest and most diversified suppliers of containers and packaging materials, according to MODERN PACKAGING's information.

The Packaging Institute statement was the outcome of a report to the board from a special committee formed to investigate the whole subject. More specific recommendations were not made because it became apparent that it would be difficult to suggest principles that apply equally to all products.

However, the institute affirmed its willingness to work with vertical trade groups in developing industrywide codes or standards if they are deemed necessary to maintain consumer confidence. The complete text of the PI statement appears herewith. The 400 members of the institute include most of the major packagers of consumer goods.

The Toilet Goods Assn. also has issued a recent statement of policy.

Referring to the Food, Drug & Cosmetic Act's stipulation that the net-contents statement must be "conspicuous" on the label-and noting that the subject is likely to become more important-TGA suggests that member companies survey net-content markings of their packaged products to determine if statements are sufficiently conspicuous to comply with legal regulations.

Just before Congress adjourned late in September, Senate approval was given to a Food & Drug Administration operating appropriation of \$23,000,000 for the current fiscal year - restoring \$1,000,000 of a \$1,580,000 slash proposed by the Senate Appropriations Committee.

If the full cut had been made, F&DA would in all likelihood have had to curtail its newly invigorated campaign on packaging. Action





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157 West 21st ST., New York 11, N. Y. CHelsea 3-6717 against misbranded foods, drugs and cosmetics (which includes "deceptive" packaging and labeling) ranks third in priority on F&DA's enforcement program and could be fully implemented only when sufficient operating funds are available. Apparently, they now are. F&DA's \$23,000,000 budget is some \$4,000,000 higher than last year.

Preventive maintenance

[Continued from page 162]

fore, the timing of lubrication is an important fact to list in the log book and follow to the letter. Also, high-quality lubricants represent an investment that will pay big dividends. By following these two rules, we have eliminated bearing problems in the last five years.

In addition, many machines require daily touch-up lubrication, particularly at oil points. It is not necessary to record this maintenance so long as mechanics conscientiously perform such day-to-day work. There is one caution, however. Over-lubrication can cause trouble, particularly with electric motors.

Mechanical adjustment. The maintenance foreman and his group leaders must spend as much time as possible in checking and observing packaging equipment while it is being used. Even the slightest change in the normal sound of a running machine is a most valuable warning sign, pointing up mechanical problems in the making. For example, changes in the sound of a knife cutting a paper roll on a bundling machine will forecast need for sharpening well in advance of observed poor cutting.

In addition, unusual motion of a lever or vibration of a shaft means that these parts are worn and that production will be forced to stop unless corrective action is taken at the first opportunity. Such observation of machinery during operation is a less formal phase of preventive maintenance, but it is essential.

These supervisory inspections, however, do not relieve the mechanic from the responsibility of observing his machines while they are producing and promptly making adjustments to keep every part in maximum working order. At these times, even trivial observations will enable

him to verify conditions discovered during formal machine inspection, when he can replace worn parts and, in general, return the equipment to "like-new" condition.

The machine operator, too, has definite preventive-maintenance duties. They include listening for unusual noises, reporting unusual incidents and malfunctions of equipment during operation and, above all, keeping the machinery and equipment as clean as possible.

Summary

From this plan, it can be seen that a proper preventive-maintenance program necessitates close cooperation between all members of the production team, from supervisors to maintenance mechanics and machine operators.

Given such teamwork and the proper tools with which to do the job, it is possible to set up an effective plan for cleaning, lubricating and adjusting equipment that will effectively prevent many mechanical problems from developing and increase the life of valuable packaging machinery and keep it in condition for steady, efficient production.



Save up to 50% by printing your own stock—reduce inventory and improve flexibility—eliminate the costly scrapping of obsolete or excess seasonal preprinted materials. The Pratt Roto-Printer is specially designed for in-line use with any web-fed packaging machinery and provides high quality single-color rotogravure printing on a wide variety of materials and widths. Two or three units can be combined for multi-color work. Roto-Printer is extremely compact (16" x 25") and features a constantly circulating ink supply, assuring fresh and uniform ink at all times; a separately driven printing cylinder for constant rotation preventing drying of cylinder ink; automatic disengagement and engagement of impression roll; and registration without costly photoelectric eye control for most applications. Also, units for roll to roll printing. Send for complete details today.

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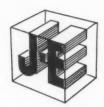
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F&DA actions on food additives

Acting to pinpoint the status of major groups of packaging compounds that are not yet classified under the Food Additives Amendment of 1958, the Food & Drug Administration recently cleared 463 chemicals used in adhesives and paperboard for food packaging and at the same time extended the use of 312 more substances for periods ranging up to $2\frac{1}{2}$ years.

Approvals encompass: 340 adhesive chemicals, published in the Federal Register, Sept. 12, pp. 8509 to 8513, and 123 paper chemicals, published in the Federal Register of Aug. 30, p. 8100.

Extensions include: 23 adhesive chemicals and 112 coating substances for paperboard, published in the same two issues, and 177 miscellaneous compounds used in various packaging materials listed in the Sept. 6 (pp. 8394 and 8395) and Sept. 12 (pp. 8508 and 8509) issues of the Federal Register. While some extensions were granted up to June 30, 1964, specific dates for each chemical are listed in that Government publication.

The long-awaited adhesive listing permits the use of adhesives in food packages if the adhesives are separated from the product by a functional barrier, or are used in accordance with certain limitations for particular types of foods. In dry foods, the quantity of adhesive used in the package must not exceed the "limits of good manufacturing practice." In fatty or aqueous foods, the quantity of adhesive that contacts the product "shall not exceed trace amounts at the seam or at the edge exposure between packaging laminates." As a further qualification, packaging seams and laminates are required to remain "firmly bonded without visible separation" under normal commercial handling.

In addition to the long list of formally sanctioned chemicals, adhesives manufacturers may also use in adhesive compounds approved food colors, flavors and substances approved by prior sanction.

To assure safe usage of adhesives, F&DA requires that containers for these products bear the statement "Food-packaging adhesive."

Oriented cast polyvinyl chloride film

[Continued from page 167]

film. This is being done for the benefit of products packaged in the film which are deleteriously affected by ultraviolet rays. Preliminary tests in this area should be of interest for applications where a clear film would give both transparency and protection against ultraviolet effects.

Summary

In summation, the independentaxis controlled orientation process for PVC film has been practicable to date only with true solution-cast PVC films. The same homogeneous characteristics resulting from the solution process simultaneously make possible the outstanding clarity, sparkle, strength, toughness, elongation, low-temperature flexibility and yield properties.

Of cardinal importance, the shrink characteristics can be controlled, both in magnitude and direction, with higher levels of shrink energy than other methods.

Fortunately, none of the basic desirable general characteristics of

polyvinyl chloride are lost through orientation. Properties such as chemical resistance, abrasion, purity, heat sealability, etc., are not diminished by the process.

Since orientation adds so many desirable qualities, what then are its shortcomings? First, it requires complex and high capital-cost processing equipment. Second, it requires a high degree of development, both of a scientific nature and in techniques. Third, since it involves more manufacturing operations, it obviously increases the cost per pound of processed film. On the latter point, however, it is to be noted that while the price per pound of 1/2 mil oriented film is 60% higher than the same 11/2 mil non-oriented film, it is approximately half the price on an equal area base.

Because of its many advantageous properties, independent-axis orientation of PVC film results in a packaging material which can be readily converted to a variety of different useful applications.

This attractive seed-starter kit, which retails at an economical 49¢, needs only to have holes punched and water added for germinating the seeds. Lid made from Campco stress-free acetate and base from Campco S-300.



Low production cost is the big requirement for this Northrup-King Punch'n Gro pack. Yet other requirements are equally stringent. The hole recesses must be easy to punch out, but not so weak that they will rupture in shipment. The lid also should have high optical clarity, yet cannot shatter or crack during shaping. The base, too, needs to have high impact resistance, even in sections thinned for economy.

Here's how Campco know-how and materials met the requirements:

1. CAMPCO acetate provided the crystal clarity needed in the lid. Its special non-blushing formulation eliminates all clouding and discoloration.

2. To achieve high impact strength in the base, CAMPCO provides rubber-modified polystyrene sheets (.015" gauge) which are vacuum-formed to make the base—permitting a much thinner gauge than injection-molding, since it eliminates internal stresses. In the lid, this permits using .010" gauge acetate—necessary for punching of clean holes because fragility is eliminated.

3. To meet the required production cost, CAMPCO worked closely with Mankato Paper Box Company, the package manufacturer—providing technical assistance which aided Mankato in producing the Punch'n Gro seed pack economically.

Here's how Campco can help you

CAMPCO's complete line of thermoplastic sheet and film fulfills all of your requirements—acetate, butyrate, rigid and flexible polyethylene, rubber modified styrene and copolymer styrene (A.B.S.) and nylon. Also CAMPCO's Registrite which is made especially for

applications where high-quality printing and registration are required. CAMPCO can suggest design methods—to take advantage of economical stock rolls and sheets—and also suggest sources of fabrication in your area. All CAMPCO sheets are available in a wide variety of sizes, gauges and colors. For complete details, write today:

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Anaconda Aluminum helps increase convenience, improve visual impact, provide moisture retention or moisture pick-up protection. There are many sizes and shapes of rigid foil containers, with lids of board, plastic or foil available right now . . . and they may already fit your product's needs.

In addition, you'll find at Anaconda Aluminum a staff of technicians well versed in all areas of in-plant packing processes. They can help you with complete application assistance for rigid foil containers, including adaptation of high-speed, automatic container lid-closure equipment, from a complete line offered by Anaconda Aluminum.

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Folding paperboard packaging

GARDNER

A DIVISION OF DIAMOND NATIONAL CORPORATION MIDDLETOWN, OHIO

Machine tips for cellophane

[Continued from page 125]

deg., boosting output of the machine to 90 packages per minute.

However, in cases where sealing plates already have uniform heat distribution, a modification of this type may not produce any increase in the effective sealing area. Then, the second method may be used to lengthen dwell time. A Chicago confectioner was able to bring about a 25% increase in machine speed by adding extra heat-sealing capacity to an overwrapping machine employing a compression belt and running polymer-coated cellophane.

First, glass-fibre belts coated with heat-resistant Teflon were substituted for the conventional rubber belts already in use at the compression-cooling section of the machine. Then a 12-in. heat-sealing plate was placed behind the first section of the compression area at a cost of only \$35. With both sets of plates operating at the same temperature as before, this modification doubled the sealing-plate area, enabling each package to receive the proper dwell time at a speed of 110 cartons per minute-without taking up additional space in the plant or investing in new machinery.

Even with all normal precautions, there may still be occasions when cellophane stored for abnormally long periods may, under extremes of humidity or temperature, pick up or lose moisture at the edges, causing conditions known as "puckering" or "beading." This is particularly true when film is carried over from one year to another for wrapping seasonal items and is not properly protected in storage.

If the problem is puckering (moisture loss), which may cause breakage of the web on the packaging machine, it can usually be corrected by wiping each end of the roll with a wet cloth as the roll is placed on the packaging machine.

However, if rolls are beaded (moisture absorption), one effective solution is to add a pair of parallel snubber bars just ahead of the feed rolls, draping the film in an "S curve" around them. This applies extra tension and an ironing action, often permitting the entire lot of film to be used without trouble.

An installation of snubber bars on overwrapping equipment in the Ohio

plant of a national cake bakery made it possible to use 12,000 lbs. of printed cellophane that had been carried over from the previous season in an unprotected storage area.

With printed film, a degree of distortion may also result from abnormally long storage, due to the increased diameter in the printed "lanes." Packaging machines using push feeds will generally handle such film if its corrugation is increased by the packager.

This may be accomplished either by the addition of extra corrugating fingers or wires, or by the purchase of extra corrugating attachments from the machinery manufacturer.

A simpler—though temporary—means of increasing corrugation was used recently in the plant of an Atlanta baker for running a small amount of printed film that had been stored for an unusually long period under poor humidity conditions. He simply laid a piece of corrugated board underneath the spring belts at the film-feed section, thereby increasing the corrugations that these belts put into the film as it was run.

Conclusion

From the standpoint of over-all production efficiency on the packaging line, cellophane has long demonstrated its machinability, but the examples cited here indicate some further mechanical refinements that have been developed to provide an added degree of efficiency in cellophane wrapping under special conditions. Although these machine changes may bring only a slight improvement, this additional efficiency can materially increase package production and cut costs, when added to the already high level of performance which is attainable with cellophane film.

The techniques covered are only those common to machine and production conditions generally encountered in the use of cellophane. It would be impractical to cover specialized techniques that are sometimes required for specific packaging operations. Such modifications are accomplished most effectively by highly trained technicians who can best develop a solution in the plant after observing the particular conditions involved.





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LEATHER

Sounding board

[Continued from page 78]

housing, identification, stacking, shelf life, etc. We try to put convenience factors for the consumers' benefit into packaging, but in so doing we are being carried away and are creating as many problems as we are solving.

The disposal of packages, for example, is already a major problem in industry and in retail warehouses and stores, and it is rapidly becoming one at the consumer level. For instance, the aerosol can was a major advance in packaging, but didn't we nullify part of the improvements made in this instance by the necessity of printing warnings about storing, puncturing and incinerating the can itself?

In short, we must be sure that we do have a solution that is right and not one that merely relocates a problem-also that, through our packages, we remain basically honest and give true value throughout the cycle of distribution and use. •

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, JULY 2, 1946 AND JUNE 11, 1960 (74 STAT, 299) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF MODERN PACKAGING, published Monthly at United States Post Office, Bristol, Connecticut, for October 1, 1961.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Mr. Alan S. Cole, 770 Lexington Avenue, New York City; Editor, Mr. Lloyd Stouffer, 770 Lexington Avenue, New York City; Business Manager, Mr. Theodore B. Breskin, 770 Lexington Avenue, New York City; Suniness Manager, Mr. Theodore B. Breskin, 770 Lexington Avenue, New York City; Suniness Manager, Mr. Theodore B. Breskin, 770 Lexington Avenue, New York City; Suniness Manager, Mr. Theodore B. Breskin, 770 Lexington Avenue, New York City, Suniness Manager, Mr. Theodore B. Breskin, 770 Lexington Avenue, New York City; Mr. Sunine and addresses of the individual owners must be given. If owned by a partnership or other unin-corporated frm, its name and addresses, as well as that of each individual member must be given. Mr. Charles A. Breskin, 59 Park Road, Searsdale, New York; Mrs. Millie Breskin, 59 Park Road, Searsdale, New York; Mrs. Millie Breskin, 59 Park Road, Searsdale, New York; To Lexington Avenue, New York Stought Stought Statesville, N. C.

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ALAN S. COLE, Publisher Sworn to and subscribed before me this 21st day

of September, 1961.

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Commission expires March 30, 1962.

High-fashion approach

[Continued from page 146]

a full-color-printed applied label on each, depicting the finished item. And impressive economies are realized by ganging up the label printing for several items on the same sheet. Another selling feature of these packages is the use of acetate windows die cut to simulate the actual shape of each finished item. Through the window the shopper thus sees the needlepoint design exactly in the position it will appear when the item is completed.

The third part of the program is a distinctive new yellow-and-gray family design to give instant recognition to all Traum notions. Almost all of the merchandise in this line is carded and the designer has discovered noteworthy economies in carding techniques. A strong polyester film is stretched over a shallow needle-selector case, thereby eliminating the cost of more expensive blister packaging.

Another cost-saving idea for Traum notions is the design of a card with integral die-cut flaps that secure a bobbin box to the card. The die-cut and scored flaps are simply folded over two edges of a hingelidded, polystyrene box. When the transparent box cover is closed, the flaps hold the box securely on the card and the re-usable plastic box itself serves as the transparent member to give the consumer full visibility of the product enclosed.

In instance after instance, success of the redesign program is winning recognition for packaging as a continuing, integral part of promotions in all three David Traum divisions to build new markets and increase sales.

Changing concepts

[Continued from page 114]

the impulse sealing jaws in closed position. The mechanical arrangement is fast acting and provides uniform pressure across both top and bottom of the sealing iron. A special pre-heating system for the impulse sealer speeds action of this unit. Auxiliary adjustable hydraulic check valves cushion the motion of the sealer on closing and opening strokes to reduce mechanical shock.

Cut-off mechanisms, which are closely allied to the heat-sealing

operation, have also been modified on very high-speed units. For example, on the 300-per-minute pouch packer discussed before, a new rotary unit has been teamed with the orbital heat sealers to divide the pouches from the web. It consists of two spindles, each with four arms that contain hardened-steel inserts. On one spindle, the four inserts are face mounted against rubber shock pads. The other spindle has the four inserts edge mounted so that they contact the faces of inserts on the opposing arms. The pouch web runs between the spindles and is cut by the knife action.

One immediate benefit of this system is long life, since each individual insert has four faces and four edges that can be utilized progressively by turning the insert or installing it in the opposite mandrel.

Timing and registration of the cutoff on this high-speed machine is a delicate operation and is accomplished with an interlocked photoeve and servo motor-controlled variable-speed drive. Unlike machines with reciprocating cut-off devices, however, the photo-eye cannot spot the registration mark and then signal for cut-off, since the rotary device must run continuously. Instead, the electronic spotter in this machine is set to sense the correct point at which it should pick up the registration mark. If it does not, an impulse is sent to the servo motor, which then either speeds up or slows down the cut-off mandrels until correct timing is achieved.

Increased speed has also produced problems in getting limp thermoplastic films or hard-to-handle products into the right place at the right time to form the completed package. Vacuum devices—long used to feed labels and closures and to set up cartons—have been utilized in modern and ingenious ways to cure these new problems.

In the new pouch packer with multiple sealing jaws, described previously, thermoplastic films are pulled down the forming tube by a vacuum sleeve, which not only gives a positive feed, but is said also to relieve stress and strain on the film for better seals.

In another fast vertical pouch packer (Hayssen), even the pull of gravity cannot get such powdered products as detergents into the film tube fast enough. So a double forming tube is employed, with a vacuum between the shells. When the trap is opened on the volumetric filling cup of the machine, the vacuum pulls the product rapidly into the pouch in a single slug.

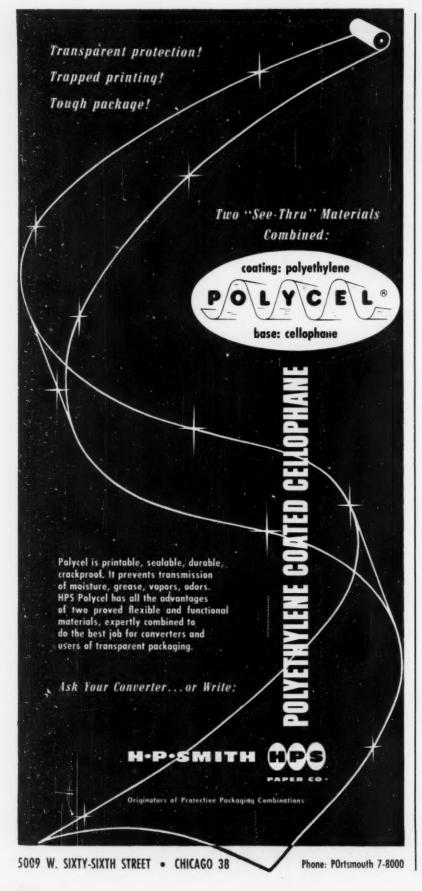
Vacuum belts, too, have been greatly improved in the past two years. They are now being used to convey plastic containers at high speeds and are used in the film feed of a horizontal wrapper (Oliver). Such a mechanism is now under study as a high-speed feed for thermoplastic films in a vertical pouch packer, where high operating speeds are rapidly taxing standard mechanical means of overcoming film-roll inertia and the friction inherent in thermoplastic materials.

Miniaturization of parts has been extended to many mechanical components in the packaging field and is now widely employed for such devices as micro clutches and brakes, servo motor controls and compact gear systems. One of the most interesting trends is the expanded use of miniature printing systems as component parts of labeling, cartoning and bagging equipment on the packaging line.

Following the general trend in the printing field, such tiny imprinters are generally of the offset or flexographic types. And their popularity is a reflection of current marketing needs, since they provide the packager with a quick means of changing or adding new product identification or pricing to corrugated shippers, folding cartons and film bags, or of providing special labels for these and other containers.

Basic improvements in the mechanisms for motion, control and specialized functions are important examples of the strengthening current of engineering development that is sweeping the entire packagingmachinery field. Further evidence is seen in new moves by packagers and suppliers to formulate standards and specifications for machinery components, in the intensified interest and cooperation displayed by materials and container suppliers toward the machines that handle their packages and in the growing work of packaging production committees to solve the grave shortage of skilled operating and maintenance personnel.

Such efforts seem to herald a new era of mechanical development for the packaging field.



Specifying machinery

[Continued from page 158]

sonnel to review new mechanical products and to discuss the performance of any new packaging machinery and equipment.

For liquid products and toiletries, such meetings are held every 18 months. At the last session, which was held in May of this year, specifications for 77 different types of mechanical and electrical components were reviewed for their validity from an operating standpoint.

The tableted-products division, being newer, does not have the long-term experience that warrants this type of meeting. Instead, engineers from this department hold weekly meetings with plant operating personnel to check on post-start-up problems and to assemble information that will make subsequent specifications more practical.

Result of these meetings is frequently the selection of new or alternate materials for machinery construction and components and systems that lower the cost of packaging equipment or boost the output of machinery.

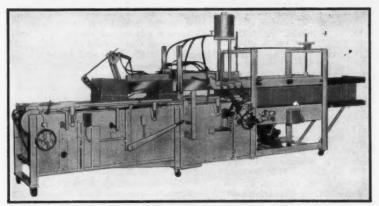
Specifications should be based on the functional operation of components wherever possible, according to company engineers. Insistence on special brands without reason can jump the cost of a machine tremendously and cause long delays in construction because vendors cannot stock replacement parts from all machinery manufacturers.

With these specification procedures and standards, P&G has achieved marked improvements in the performance and economy of its packaging machinery and has achieved better communications with the company's suppliers.

For the entire packaging field, the real answer lies in a joint effort by packagers and vendors to establish the necessary standards and specifications that will enable all users to benefit from the advanced machines which are now available in the packaging field.

CORRECTION: A news item in the September issue of Modern Packaging ("Filling, Plugging, Screw-Capping Machine," p. 184) contained an incorrect headquarters address for Chase Equipment Co., supplier of the machine. The company's correct address is 633 Bergen St., Brooklyn 38, N.Y.

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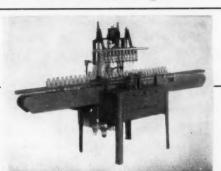
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To Detroit: for the Fourth Packaging Machinery Show

[Listing continued from page 150]

ALUMINUM CO. OF AMERICA. Booth 530. Exhibit of complete line of aluminum closures; variety of aluminum cans; also samples of printed foil.

AMACO, INC. Booth 945. Exhibit of Hofliger & Karg (Germany) equipment including: Type SPM/EMW LT fully automatic packaging unit for long-cut macaroni, spaghetti and similar long goods; Type TRFS fully automatic tablet tube-filling and closing machine; Type CAR 3a fully automatic cartoning machine for cartoning vials, glass tubes, collapsible tubes, flat bags, wrapped tablets, sealed suppositories and tablets, etc.; also Type TZV automatic tablet and pill counting machine. Hotel: Statler Hilton.

AMERICAN STERILIZER CO. Booth 852. Exhibit of combination gas and steam sterilizer; flexible film drybox; water stills; small gas sterilizer; also laboratory freeze dryer. Personnel: R. Bowles, D. Baird, D. Ratliff. Hotel: Statler Hilton.

AMERICAN VISCOSE CORP. Booth 247. Exhibit of films suited as components in combination packaging materials, such as supplied by converters, including film laminations and extrusion-coated cellophanes; Avistrap cord

strapping and tools and accessories for its application; Avistrapper automatic strapping machine; other company products. Personnel: G. J. Alles, R. E. Reynolds, E. E. Ruggles, J. D. Conti, W. M. Nolan, C. R. Shaffer, J. B. Baughman, R. K. Scharff, W. M. Carney, J. E. Talbot, L. P. Brown. Hotel: Sheraton-Cadillac.

AMSCO PACKAGING MACHINERY, INC. Booth 611. Exhibit of Amscomatic 75 poly packaging machine; Amscomatic 300 mobile ticketer/labeler; Amscomatic 100 poly packaging machine; Model PJL power jaw bag-label sealer; also Frazier Whiz Lifter and Whiz Packer materials-handling equipment. Personnel: E. E. Messmer, J. D. Sylvester, J. D. Keenan, Jr., E. H. Watson, S. R. Watson, J. M. Kelly, F. Czifra, H. K. Weber, M. R. Frazier, Hotel: Pick-Fort Shelby.

ANDERSON BROS. MFG. CO. Booth 836. Display of new Model 382 frozenfood filler; Model 340 universal filler and capper for packaging a wide variety of viscous food products in nesting-type round paper or plastic cups; Model 520 sanitary pump; also Model 134 Speedy Bagger. Personnel: R. F. Anderson, W. E. Gunnerson, H. Cop, R. LaForge. Hotel: Pick-Fort Shelby.

APEX MACHINE CO. Booth 148. Exhibit of new Model EA-10 air-operated hot-stamping machine with rotary turntable feed to stamp on areas up to 6 by 6 in.; automatic, semi-automatic and hand-operated machines for marking on almost any surface and shape; AMC line of carton, conveyor and code markers; new AB-20 air-operated conveyor marker. Personnel: A. R. Coningsby, Jr., O. Bodor.

ARABOL MFG. CO. Booth 829. Exhibit of packaging which was produced during first part of 1961 with information on packaging machinery used to produce them, indicating problems and solutions for efficient and accurate adhesion for each product. Personnel: A. J. Leary, H. Weingartner, E. Diedrichs, W. Knobloch, F. McCourt, W. Godfrey, F. Belletire, W. Beaver, A. Gnewuch. Hotel: Detroit-Leland.

ARENCO MACHINE CO., INC. Booth 518. Exhibit of Type GAN high-speed tube-filling machine; Model A. T. 5 Arenco-Alite powder-compressing machine; also Type LF Arenco-Alite powder filler. Personnel: H. F. Morse, B. Nordahl, K. Faxander, T. Gronberg, R. Nordstrom. Hotel: Statler Hilton.

ATLAS VAC-MACHINE CORP. Booth

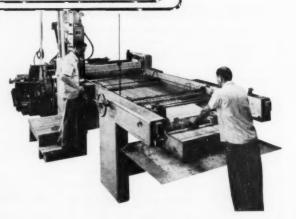
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"Minimum set-up time and accuracy have made this machine* one of the most talked of in the plant."

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736. Exhibit of completely automatic inline form, feed, trim and seal machine; also other less-automatic packaging equipment. Personnel: D. R. Zelnick, R. C. Cole, D. W. Reed, F. V. Colberg, Mrs. D. R. Zelnick, A. Savino. Hotel: Pick-Fort Shelby.

AUTOMATION. Booth 134. Automation magazine on display. Personnel: R. Bolz, J. Keebler, L. D. Brennan. Hotel: Statler Hilton.

AVERY LABEL CO. Booth 953. Demonstration of automatic pressure-sensitive labeling and imprinting; also latest pressure-sensitive labels and decorative packaging materials and packaging processes. Personnel: R. J. Pearson, R. E. McFarland, R. W. Morris. Hotel: Sheraton-Cadillac.

AVISUN CORP. Booth 629. New concepts in packaging technology resulting from advancements in polypropylene film and resin to be demonstrated; complete line of polypropylene films and resins; end uses of polypropylene resins. Personnel: H. H. Cudd, W. P. Moeller, J. Adrian, E. M. Irish. Hotel: Statler Hilton.

BARKLEY & DEXTER, INC. Booth 201. Service rather than standard equipment will be featured. Personnel: R. G. Dexter, P. E. Cheney, J. M. Moran, R. Tetrault, R. W. French, E. G. Ferrari. Hotel: Sheraton-Cadillae.

BARTELT ENGINEERING CO., INC. Booth 500. Automatic packaging and cartoning machinery on display. Personnel: W. T. Boston, R. D. Lamb, E. R. Peterson, J. L. Tobin, R. H. Baker. Hotel: Sheraton-Cadillac.

BATTLE CREEK PACKAGING MACHINES, INC. Booth 620. Exhibit of fast-flow carton-wrapping machine; two polyethylene wrapping machines; also an instantly adjustable pouch-packaging machine. Personnel: B. H. Redner, K. H. Redner, B. H. Redner, Jr., J. W. Smith, C. J. West, A. J. Winhusen, W. B. Shelly, F. Zerad, W. MacIntosh. Hotel: Detroit-Leland.

BELL-MARK CORP. Booth 216. Display of new bottom coder for imprinting the bottom of containers, jars, etc., at speeds up to 650 per minute; front and side case printer; coders used for registering imprint on various products; carton coders; Model 1240 printer mounted on unwind stand for use in imprinting continuous-web materials; new printers of double-frame construction for imprinting up to 12-in. face width; also new Electra-Printa for imprinting products of various sizes. Personnel: J. Mastracchio, A. Alessi, L. Rogers, D. Duhart, F. Born, C. Le Fan, O. Ho, N. C. Phillips, R. Clark, S. T. Daniels. Hotel: Sheraton-Cadillac.

BEMIS BRO, BAG CO. Booth 709. Operation of latest high-speed automatic

feeding and weighing machines to pack and enclose multiwalls; Ultra Pak machine making tetrahedral form, fill, seal packages; innovations in bag constructions, including paper, plastic, paper specialty, Bemis-Strip easy-opening feature; Tekmold protective packaging; Liquatainer; Morgan pressure-sensitive label stock; air-formed bottles, containers and molded plastic shapes, and other company products on display.

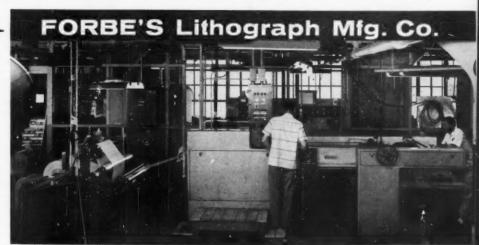
BETTER PACKAGES, INC. Booth 227. Exhibit of improved Better Pack 555 electric tape dispenser; Better Pack Robot Repeater with fully automatic dispensing for production runs of samesized cartons; CodeTaper tape printers with improved printing attachment; Better Pack 555-S and 555-L models with new patented top tape heater for instant and thorough conditioning of reinforced tape for manual application, Personnel: T. H. Krueger, M. W. Waggoner, V. Kohl, L. E. James, G. L. Ryder, T. Herrmann, O. K. Hill, N. Campanaro, B. Bigelow, B. Chilton, E. Deline, T. Delius, R. Drysdals, K. Ellison, L. Laughner, G. Lebherz, G. Mc-Clure, J. Murphy, H. Putnam, A. D. Smith, D. A. Smith, F. Smith, H. Smith, B. Stallings, P. Toyofuku, W. Turner, J. Valestin, D. Wilson, C. Wishner. Hotel: Sheraton-Cadillac.

BINER ELLISON MFG, CO. Booth 838. Exhibit of Labelmatic labeling machine for spot and/or wrap-around

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labeling. Personnel: T. E. Ellison, S. F. Ellison. Hotel: Sheraton-Cadillac.

BIVANS CORP. Booth 433. Exhibit of Convey-O-Mat fitted with a printer, combined with closing unit. Personnel: E. L. Bivans, R. Bivans. Hotel: Prince Edward.

BROWN FILLING MACHINE CO., Sub, Sundstrand Corp. Booth 221. Multiple packeter exhibiting new gravitytype liquid-filling mechanism and a new swing-open die mechanism; Dual Formapak which will automatically fill and package hardware items and a powder product simultaneously. Personnel: D. Stenberg, A. Craig, C. Kern, B. Ashe, H. Larkin. Hotel: Sheraton-

BURTON, JOHN, MACHINE CORP. Booth 800. High-speed application of Du Pont Vexar net cushioning for glass jars with unic placing netting on glass jars at speed up to 300 per minute to protect jars during shipping at lower unit cost than cardboard partitions, with reduction in weight and size of shipping carton; Stripstamper machine for application of pre-coated heat-seal stamps at speed up to 200 bottles per minute; Celubander machine for application of cellulose band seals; Bi-Planar conveyor chain for smoother, more efficient handling of bottles, jars and containers around corners without transfer over deadplates or disks. Personnel: B. Rice, J. E. Struer, B. F. Randrup.

CAMERON MACHINE CO. Booth 621. Slitting and roll-winding machine for processing various packaging materials, such as films, foils and laminates, at speeds up to 1,500 ft. per minute with rewinding rolls up to 24-in. diameter. Personnel: E. J. Ward, R. Sherman, L. Rockstrom, T. Crowe, P. B. With-standley. Hotel: Cadillac House.

CHAIN BELT CO. Booth 150. Island display featuring Rex table-top conveyor chain and Rex plate-top conveyor chain in action, Personnel: R. E. Kisch, S. Kurtz, V. Peterschack, G. Schuelke, W. McKay, W. Kennedy, N. Hibbard. Hotel: Shcraton-Cadillac.

CHASE EQUIPMENT CO. Booth 840. Exhibit of Model 31SC filling, plugging and capping machine; Model 31 filling and plugging machine for filling and partially inserting special rubber stoppers used for lyophilization; Model 22 semi-automatic stoppering machine sorting and applying Continental Can Co. plastic flip cap on style "F" metal cans; also Model AM2-SH piston filler. Personnel: R. M. Logeman, C. W. Logeman, J. Henderson, G. Parodi. Hotel: Statler Hilton.

CHERRIN PRODUCTS CO. Booth 224. Display of Bag-Pac machine to package or make regular bags using poylethylene which seals on all four sides, with quick roll change and adjustable drop table, and makes bags ranging in size from postage-stamp size to 30 by 30 in. Personnel: M. Johnson, P. Cherrin,

CHISHOLM RYDER CO. OF PENNA. Booth 648. Display of complete line for feeding, labeling and filling of plastic containers, including New Way Model E-7 labeling machine; New Way Model E-7 labeling machine specially adapted for plastic containers; New Way Model RGP-724 rotary liquid-filling machine; also New Way Model 25C in-cas-8 liquid-filling machine. Personnel: E. J. Abendschein, W. F. Roth, K. B. Severson, N. E. Snyder, G. R. Williams, W. B. Sanford, H. G. Manley, R. E. Anderson, A. T. Atkins. Hotel: Statler Hilton.

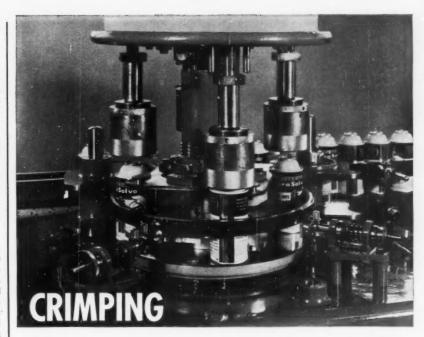
CLAMCO DIV., Cleveland-Detroit Corp. Booth 139. Exhibit of Model 850 heat-shrink tunnel designed for use with new shrinkable films such as saran, Trycite, Reynolon, etc.; Model 750 wrapping unit designed for wrapping produce, meat and cheese in grocery chains, as well as soft goods and small resale items in industry, using roll film; Model 280 automatic sealer for sealing polyethylene bags up to and including 5-mil thickness, Personnel: R. E. Lavanture, J. D. Patterson. Hotel: Statler Hilton.

CLARK-AIKEN CO. Booth 410. Exhibit of 46-in. Type "GSR" cutter for register sheeting, with new rejection layboy for rejecting unacceptable sheets; also shuttle piler, air tables, lift tables and stub arbors. Personnel: J. C. Hart, J. J. Waddock, E. A. Lowry, W. M. Davis, J. Marby, G. Keates. Hotel: Statler Hilton.

CLIMAX PRODUCTS DIV., Lodge & Shipley Co. Booth 438. Exhibit of Unimatic continuous high-speed uncaser; Unimatic cycling-type uncaser; Unimatic uncasing, unscrambling table; Unimatic high-speed four-flap opener. Personnel: R. G. Hilgeman, E. F. Rowekamp, P. A. Anderson, A. T. Marcus, P. F. Connelly, F. J. Toby, E. J. Humphrey. Hotel: Statler Hilton.

CLYBOURN MACHINE CORP. Booth 233. Exhibit of high speed tucked-end candy-carton filling machine; also Model B CMC continuous automatic carton filling and sealing machine with volumetric filler. Personnel: H. Carlson, H. Tellfors, R. Lehmann, S. Lindgren, F. Thomsen. Hotel: Detroit-Leland.

COLTON, ARTHUR, CO. Booth 325. Exhibit of new No. 27 Colton-Hope multiple, automatic, conveyorized, heavy-duty volumetric filling machine for filling high-viscosity and ropy material such as caulking and greases into tubes or cartridges; new No. 116 high-speed volumetric rotary filler for filling pastes, creams and liquids into jars, cans or bottles at speeds from 110 to [Continued on page 252]



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The machine features a completely mechanical operation . . . no air required. During the crimping operation, a mechanical plunger drops over the valve and expands 6 precision-tooled segments for crimping contact. When the plunger retracts, the segments snap back into position for positive release of the can before top pressure is released. The crimping operation is further protected by Consolidated's built-in accuracy of container handling and centering, with automatic pre-seating of unseated valves.

Crimper jaws are adjustable to provide depth of crimp desired. The machine, with adjustable turret, can be easily set for proper crimp height and top pressure.

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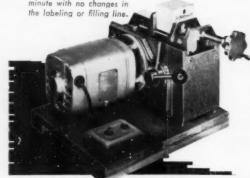
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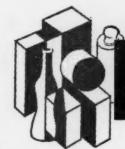
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EQUIPMENT SUPPLIES SERVICES



MANUFACTURERS' LITERATURE

Described by low...the latest literature, catalogs and brochures of interest to the packaging field. Dollar saving and dollar making ideas and data...available without charge.

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Equipment and Machinery

CHECKWEIGHER. Illustrated data sheet describes a continuous motion unit that provides fully automatic weight control of tilled containers; adjusts to fit all production lines. Contains specifications and list of optional equipment. Food Machinery & Chemical Corp., FMC Packaging Machinery Div. (150-K)

MULTI-PURPOSE DUMPERS. An 8-page brochure describes and illustrates a line of dumpers that lift and dump all free-flawing material and standard and special containers. Includes list of safety factors, mechanical features and optional equipment. Essex Conveyors, Inc. (151.K)

CAN AND BOTTLE CRUSHER. Brochure describes a can and bottle crusher for disposing of rejects, etc. Contains data and illustrations. Rescor Industries. (152-K)

GAS SPARGING. 4-page brochure describes a method of injecting gas into liquid or semi-solid foodstuffs during processing in order to preserve quality and fluff the product with minute gas bubbles. Contains specifications and lists of applications. Air Reduction. (153-K)

HIGH SPEED DRYING. Reference file describes a line of high velocity air dryers for drying inks and coatings on paper, film and foil. Includes diagrams and specifications. Comac Engineering, Inc. (154-K)

CODE DATING. 10-page booklet discusses the mechanics of initiating and maintaining a code dating system to assure freshness in products. Includes imprinting selector chart and other data. Adolph Gottscho, Inc. (155-K)

INDUSTRIAL HUMIDIFICATION. An 8page brochure illustrates and describes duct-type industrial humidification units designed to control humidification in bag making and storage, among other uses. Includes technical data and diagrams. Walton Laboratories, Inc. (156-K)

BLISTER PACKAGING. A 4-page brochure describes a blister packaging machine for single or multiple units or continuous ribbon operation. Contains illustrations, diagram and specifications, Sundstrand-American Broach, Div. of Sundstrand Corp.

LABEL DATING. Three bulletins describe equipment for dating and coding of labels of all sizes in packets of up to 500 or more at a time. Includes specifications and other data. Griffin-Rutgers Inc. (158-K)

SKIN PACKAGING. 6-page brochure describes a machine for skin packaging with polyethylene film. Includes a miniature sample plus illustrations of typical applications and other data. M. F. P., Div. Avery Industries, Inc. (159-K)

AEROSOL PRESSURE BURETTE AND HAND CRIMPER, Illustrated sheets describe pressure burette for small lot and laboratory work. Burette is portable, calibrated in 5 cc graduations. Second illustrated sheet describes hand crimper for crimping aerosol valve caps. Aerosol Machinery Co. (160-K)

AEROSOL HEAT AND LEAK TEST TANK, Illustrated 4-page folder describes and gives specifications for heat and leak test tank for aerosols. Tanks have from 30 to 120 cans per minute capacity. Island Equipment Corp. (161-K)

PHOTO-COMPOSING MACHINE. 2 illustrated data sheets describe two automatic step and repeat and photo composing machines with punch card control. Used for labels, stickers, wrappers, etc. Entire job is produced automatically on film, glass or metal plates. Royal Zenith Corp. (162-K)

ELECTRICAL CUTTING MACHINE. 4-page brochure illustrates and describes single knife cutting machine which will make any size width cut down to ½6" and will accommodate any roll of macterial up to 72" in width and 12" in diameter. Oscar I. Judelshon, Inc. (163-K)

ELECTRIC EYES. 22-page illustrated booklet covers all phases of electric eye applications in automation. General roundup story of the history and development of electric eyes. Included is a wide range of illustrations and schematics showing diversified photo-electric systems. Photomation, Inc. (164-K)

BULK HANDLING. 4-page illustrated brochure describes bulk handling system

that offers efficiency, flexibility and versatility. Tote System, Inc., Sub. of Hoover Ball and Bearing Co. (165-K)

WRAPPING MACHINES. 4-page illustrated brochure describes machinery that forms a bag; holds bag open for loading; closes bag; seals, forms and delivers. Only one operator required. Cycling speed: 30 per minute. Stephen Bodolay Inc. (166-K)

MULTI-PROCESS PRESSES. 8-page illustrated book describes flat-bed web press that prints from ordinary type, machine composition, engravings or electrotypes. Also for printing from rubber or plastic plates. New Era Mfg. Co. (167-K)

Packaging Forms

PORCELAIN METALWARE, 12-page booklet describes and illustrates a complete line of decorated and embossed porcelain metalware for a variety of specialty applications. Includes dimensions and other specifications. Daher Co., Inc.

PICKING BOXES. 12-page booklet describes sawn-nailed picking boxes for use in orchards, processing plants, etc. Contains illustrations of applications plus specifications, The Wooden Box Institute.

PLASTIC BOXES. Three data sheets illustrate and describe a line of plastic boxes with and without compartments and with snap-catches and snap-in hinges. Includes specifications and other data. Colonial Moulded Plastics Co., Inc. (170-K)

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PLASTIC COVERS. A. 3-page fold-out brochure describes and illustrates rigid transparent plastic covers for aluminum foil containers, Contains suggestions for packaging uses. Ekco-Alcoa Containers, Inc. (171-K)

VIALS. 8-page brochure illustrates and describes lightweight plastic vials and tubes for packaging small items. Gives examples of application plus capacities. Lusteroid Container Co., Inc. (172-K)

ATOMIZERS, PUMPS, DISPENSERS. Data sheet illustrates and describes several groups of atomizers, lotion pumps, sprays and dispenser heads for a variety of applications, Gives properties and example of prices. Evans-Crowder Co. (173-K)

Materials

FLEXIBLE PACKAGING. 4-page brochure describes a line of bags and materials for flexible packaging of bakery goods, ice cream bars, meat packaging, etc. Includes illustrations of applications. Bagcraft Corp. of America. (174-K) TRANSPARENT FILM. A folder describes a transparent vinyl film for a wide variety of packaging applications. Includes

specifications, price list and conversion tables plus a sample of the film. Clopay Corp., Industrial Films Div. (175-K)
PLASTICS FOR PACKAGING. Two folders describe polypropylene and polyethylene and their applications to packaging. Contains tables of properties and other data. Catalin Corp. of America.

CELLOPHANES. A 4-page brochure describes polymer-coated films (cellophane) for packaging. Includes a table of properties and gives principal uses, E. I. du Pont de Nemours & Co., (Inc.), Film Dept. (177-K)

PLASTIC CONTAINERS. An 8-page brochure discusses problems of container collapse, including the effects of permeation, swelling, product instability, oxygen and light, etc. Contains photographs and schematic drawings plus design principles. W. R. Grace & Co., Polymer Chemicals Div. (178-K)

POLYPROPYLENE FILM. 10-page booklet describes in detail a polypropylene film for packaging bakery products, paper goods, hospital products, textiles and industrial products. Booklet includes tables of characteristics and two samples of the film. Avisun Corp. (179-K)

PLASTICIZERS, 26-page book describes new polymeric plasticizers for use in coating paper and as plastisols, among other uses. Contains specifications and other data. Emery Organic Chemicals Div., Emery Industries, Inc. (180-K)

PLYWOOD PALLETS. A 12-page booklet describes in detail Douglas Fir and Western Softwood plywood pallets. Includes a number of tables of specifications and characteristics. National Wooden Pallet Manufacturers Association. (181-K)

ADHESIVES. An issue of company's adhesive publication discusses role of adhesives research in maintenance of quality standards, "specification adhesives," and gives guide to adhesive properties. The Arabol Mfg. Co. (182-K)

CAST COATED PAPERS. 16-page booklet covers the printing, scoring and mounting of this company's cast coated papers. Discusses finish, flatness, resilience, absorption, printability and fold qualities, The Champion Paper and Fibre Company. (183-K)

PACKAGING MATERIALS. Illustrated bulletin describes high-density polyure-thane foam for packaging and cushioning applications. Designed for high shock absorption with minimum thickness and cushioning area. Leewood Corp. (184-K)

Supplies and Services

STRAPPING TAPES. A 4-page folder describes a line of pressure-sensitive strapping tapes designed to meet a variety of job requirements. Contains Illustrations on designed technical data, Shuford Mills, Inc. (185-K)

NEEDLE ROLLERS. An 11-page catalog describes a line of precision needle rollers, both spherical and flat-end, for various machinery. Contains capacity and design data and general formula for calculating needle roller application. The Kaydon Engineering Corp. (186-K)

PACKAGE PREVIEWING. Colorful folder describes a 24-hour packaging preview service which includes samples in quantity to evaluate for design, color, test marketing. Bon-R Reproductions, Inc. (187-K)

MULTI-PACKAGE CARRIERS. A 12-page brochure describes and illustrates a new plastic carrier for a variety of canned products such as canned beverages. Contains diagrams and illustrations of application. The Conex Div., Illinois Tool Works. (188-IK)

PRE-CUT TAPES. A 12-page reference file, punch-holed for binder, describes a line of pre-cut miniature pieces of industrial and electrical grade pressure-sensitive tapes on dispenser cards, Includes many examples of applications and other data. W. H. Brady Co. (189-K)

COATED GLASS FABRIC AND TAPES. Data sheets describe a line of coated glass fabrics for facing or anti-static use, and a line of pressure-sensitive topes. Includes table of properties and other specifications, Chicago Gasket Co. (190-K) ENYELOPES. A 6-page folder describes commercial envelopes available in a wide variety of sizes and styles, Includes ac-

tual samples plus specifications. Tension Envelope Corp. (191-K) LABELS. A 4-page brochure describes a line of pressure-sensitive labels, and includes a variety of actual samples. Tompkins' Label Service. (192-K)

STRAPPING MATERIALS. A 12-page brochure evaluates strapping materials and describes methods of using manufacturer's equipment and materials. Contains tests and their results. American Viscose Corp., Industrial Packaging Dept. (193-K)

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The new electronic concept in cutting is fast, efficient, and profitable. Already proven in blister packaging applications, electronic controls of United Hytronic Cutting Machines make possible precision cutting of any shape, break the bottleneck between forming and packaging operations. Also cuts such packaging materials as cardboard, chipboard, foil and paper.

Cutting die heights can vary as much as $2\frac{1}{2}$ " without beam adjustment. Downtime and setup time are held to a minimum. Machine jamming is a thing of the past; dies last longer, die costs are lower.

Modern electronic controls function as brake and clutch to end time consuming mechanical adjustments. Positive, accurate cutting is assured whether single or multiple ply. If you manufacture, mold, fabricate or package with plastics, consider United Hytronic Cutting Machines. Send coupon for more facts. Demonstrations arranged.

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To Cut Costs, Cut with United HYTRONIC Cutting Machines

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A TOUGHER

HIGH-IMPACT STYRENE

(at no extra cost)

Thin walled containers molded of new, low-oriented BAKELITE TMD-6120 high-impact styrene have demonstrated 2 to 4 times the strength of containers molded of conventional high-impact styrenes!

BAKELITE TMD-6120 offers greater molded impact strength per dollar than any other high-impact styrene now on the market! The secret: low orientation in thin walled sections for uniform strength in all directions.

This tough new material may

very well be the solution to one of your packaging problems. Containers made from TMD-6120 possess overall strength significantly higher than those made with conventional high-impact styrenes. Check the test data above for performance values. Then apply the advantages of TMD-6120 to your product requirements.

For full information, write Union Carbide Plastics Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N. Y. In Canada: Union Carbide Canada Limited, Toronto 12.

Test data for TMD-6120 High-Impact Styrene

Type of Test®	TMD-6120	Typical High-Impact Styrene
Ball Drop Test		
Temp.		
75°F.	1030 in-gm	200 in-gm
32°F.	900 in-gm	160 in-gm
−20° F.	350 in-gm	100 in-gm
Flexural Test		
(Load to Break)	105 lb.	60 lb.
Deflection Test		
(Deflection to Break)	.5 in.	.25 in.
*All tests were cond molded containers having	ucted using 1 pint in g uniform .035" wall	

PLASTICS

BAKELITE and UNION CARBIDE are registered trade marks of Union Carbide Corporation.





AUTOMATIC ROTARY CAPPING RC-1200

speeds up to 300 per min.



AUTOMATIC ROTARY INSERTING RI-1200

> accuracy and speed



SN-600 assembles aerosol & squeeze bottle assemblies



AUTOMATIC SEALING



WRITE FOR FULLY ILLUSTRATED CATALOG

M G INDUSTRIES 293 Hudson St., Hackensack, N.J. Diamond 2-3684

[Continued from page 245]

320 containers; Colton-Hope No. 19-A, eight-line high-speed filling machine; No. 175 tube filler; No. 15-RF two-line Colton-Hope high-speed filling machine; No. 15-MS single-nozzle low-production filling machine; No. 106 six-nozzle multiple liquid filler; variety of Kinsley timing screws for feeding and timing containers on packaging and filling machines. Personnel: K. B. Hollidge, L. Gajda, L. McDonald, L. Kinsley, W. Smith, J. Hoskins, C. Packard, W. A. Doepel. Hotel: Statler Hilton,

COMET INDUSTRIES, INC. Booth 946. Quick Pak automatic skin-packaging and slitting machine designed on the conveyor process to be on display.

CONOPAC CORP., Div. of Roto American Corp. Booth 406. Display of Miller and Van Winkle Millatron for molding expandable polystyrene; Formseal for making containers from a rigid plastic, filling them, sealing the filled containers with a cover sheet and trimming containers from the web; Roto-Jet injection-molding machine making threaded pieces; Roto Wrap unit and strippackaging machines; also 402 machine for applying heat-sealed cover to preformed rigid plastic containers. Personnel: R. H. Schnoor, J. H. Brezinski, E. E. Miranda, L. E. Heath, J. C. E. Williams, H. H. Beams, H. W. Hoots, J. H. Beckman, F. R. DiFranco, K. R. Fritts. Hotel: Sheraton-Cadillac.

CONSOLIDATED PACKAGING MA-CHINERY CORP. Booth 436, Exhibit of aerosol-valve crimper; rotary pilferproof and roll-on rotary capper; fourspindle crimper; eight-spindle capper; also horizontal sorter. Personnel: E. L. Kuhn, J. L. Scanlon, N. Secor, A. J. Champagne. *Hotel:* Sheraton-Cadillac.

CONTAINER EQUIPMENT CORP. Booth 728. Model 40-91/2 LL two-station adjustable cartoner equipped with a product in-feed conveyor and designed to handle an edge-lock or base-lock style carton. Personnel: E. M. Kucklin-sky, R. W. Walters, A. D. Farnow, R. Taylor, C. Ashe. Hotel: Statler Hilton.

CONTINENTAL CAN CO., Flexible Packaging Div. Booth 239. Display of Bursa-Filler used in connection with cook-in pouches; sample packages from all product lines-laminated, transparent and paper; packages packed on packaging equipment, along with photos of the machinery on which the packages were filled. Personnel: E. S. Shorkey, T. E. Piazze, D. McCready, A. La-Salvia, S. Hammer, R. Spelvegel, R. G. Buchanan, D. McCluskey, E. Ritterhoff, T. Porter. Hotel: Sheraton-Cadillac.

CROMPTON & KNOWLES PACKAG-ING CORP. Booth 521. Introduction of Redington Carton-King high-speed cartoner; Redington/Vol-Pak machine to form strip or pouch packages; Clavell



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BOOST PROFITS

With its bag and header both made of tough, sparkling Polycleer Material, the new all-in-one Rak-It-Pak display bag will make your product stand out and sell more . . . protect it until used . . . cut your packaging and labor costs 40%-60%

NO PAPER HEADER

. no cardboard insert. Rak-It-Pak's sturdy built-in header alone saves paper costs, printing, stapling,

SELLS YOUR PRODUCT

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Rak-It-Pak keeps your product dust free and bright in your customer's eye until sold.

SAVES ON LOADING AND SEALING, TOO!

Simply load and seal the Rak-It-Pak and your product is ready for market. Reduces your labor costs, increases your profits.

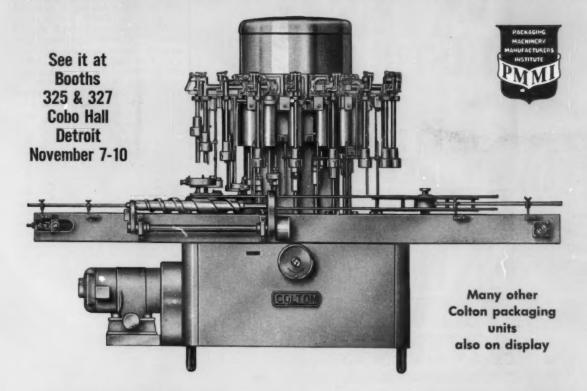
For rapid feeding and improved sealing, Northland recommends — and supplies — the new Bag-O-Matic Poly Heat Sealer.



NORTHLAND designs, produces and prints the Rak-It-Pak in 1-2-3 colors . . . many sizes, styles and gauges for quantity users. Write or call Northland today for details and samples.

NORTHLAND BAG CORPORATION 1-M6 Carleton Ave., Mt. Vernon, N.Y. OWens 9-4545

FIRST SHOWING P. M. M. I. SHOW



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Sensational High-Speed 16-Station ROTARY Filler No. 116

Fills up to 320 containers per minute. Fills pastes, creams, liquids into jars, cans, bottles 1½"-4" dia.; height up to 10". Fills ¼ fl. oz. to 32 fl. oz.

- 16 valve, piston and cylinder assemblies.
- Infinitely adjustable "bottom-up" filling platforms for 8" rise.
- Micrometer type quantity adjustment for exact fill control on each station. No overfill, no underfill, no waste.
- "No-container-no-fill" mechanism on each station.
- Nozzle-tip no-drip shut-off. Clean operation.
- High speed: 110 to 320 containers per minute; highest production per dollar invested; quick amortization.
- Many other features including Timing Screw container feed.

Here's the filling machine that pays for itself quickly and often in high speed operation and in exact volumetric fills which save you money on every fill because there's no need to overfill to meet regulations. So cleanrunning there's practically no down-time for clean-up and when you want to change over to another size fill, another container or another product, that's easy, too, because everything is so accessible and change-over kits are quickly available. Brilliantly engineered and precision built in the fine quality tradition and pride that has made Colton a leader for over three-quarters-of-a-century. Solid, rigid, vibrationless, durable and designed for the simplest maintenance. A member of the great Colton family of diversified machines serving most production needs in the food, drug, cosmetic and kindred filling fields. Ask for bulletin.

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shows you what
Kennedy can do for
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KENNEDY CAR LINER AND BAG COMPANY, INC.

3000 PROSPECT AVE. · DEPT. L SHELBYVILLE, INDIANA Bate & Nephews' B-9 overwrap machine; special Redington multipacker inserting flashbulbs into inner and outer sleeve; combination Wrap-King CKM3 and Belt Intake Automax to wrap and carton tapes; liquid film-packaging machine; Redington Pocket Intake and Standard Automax cartoners; high-speed Redington automatic roll wrapper; Wrap-King case opener, former and positioner; also Wrap-King automatic labeler for cans and bottles. Personnel: F. W. Howe, Jr., J. Barringer, W. W. Anthony, Jr., L. D. Kniffin, Jr., W. O. Meloan, T. Cherbas. Hotel: Statler Hilton.

CRYOVAC EQUIPMENT DIV., W. R. Grace & Co. (See W. R. Grace & Co.)

DELAVAN MFG. CO. Booth 441. Display of "Sonac" ultrasonic sensing and switching system for counting, sorting, routing, web-break control, etc.; ultrasonic liquids and dry-level control; seven "Sonac" units displayed in use. Personnel: W. B. Spargur, H. P. Andreasen, R. E. Keene, W. C. Hunsiker, D. Miller, W. Ewers, P. Davis. Hotel: Sheraton-Cadillac.

DELTA ENGINEERING CORP. Booth 646. Model F universal counting machine on display; also carton-indexing conveyor. Personnel: E. G. Cleveland, M. C. Klapes. Hotel: Statler.

DENNISON MFG. CO. Booth 832. Exhibit of three machines for application of Therimage heat transfers to plastic bottles, flat-fold cartons and packing films; samples of Therimage-decorated products; machine for applying Therimage heat transfer to decorate conical polyethylene bottles; equipment for application of Therimage heat-transfer labels to flat cartons; also demonstrator machine showing application of Therimage labels at point of packaging on continuous-flow web-fed overwrappers. Personnel: H. C. Weeks, R. B. Hulett, E. P. Lingham, H. E. Webster, J. F. Frazier, T. Giemza. Hotel: Sheraton-Cadillac.

DERBY SEALERS, Div. of Minnesota Mining & Mfg. Co. Booth 545. Complete line of tape and label dispensers; new "310" electric dispenser for both gummed and reinforced-gummed tape; pressure-sensitive tape dispensers; pressure-sensitive label dispensers; other gummed-tape dispensers. Hotel: Harlan House Motel.

DISPENS-A-LABEL DEVICES. *Booth* 964. Exhibit of hand-labeling moistener and heat-seal activator.

DOUGHBOY INDUSTRIES, INC. Booth 737. Display of Model CP Unipax vertical packaging machine; bag-fabricating system, including band sealer; heavy-duty band sealing with taping device; also rotary sealer with coder. Personnel: J. Buell, J. Grevich, J. John-



BOLD AND BRILLIANT FAST SETTING QUICK DRYING FOR LETTERPRESS AND OFFSET...

The quick set, fast dry and high gloss of IPI's revolutionary Speed King inks for general commercial use are now available to package printers!

Speed King Carton inks set so fast-even on patent coated boards—that offset rarely is a problem. This means higher press loads without racking, less handling, and considerably less spray than needed for conventional gloss carton inks.

Speed King's gloss on clay coated and on cast coated stocks such as LUSTERKOTE, KROMEKOTE, ULTRA-GLOSS, etc., rivals that of the finest gloss carton ink. And because it's a more uniform gloss, even lower cost stocks print better!

Speed King's split-second set and amazing dry (as little as 2 hours) mean faster processing of the printed board—with obvious advantages to the carton printer.

Speed King is stable on the press; halftones don't muddy up, small type stays open.

Equally important, there's extra "mileage" in every can—and that means more cartons per can!

These wonderful new inks-both letterpress and offset-are now available from your nearest IPI branch, in a wide range of popular carton colors.

Try them on a really tough job-and see the definite difference!



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ston, H. Weatherhead. Hotel: Cadillac House Motel.

DU PONT, E. I., DE NEMOURS & CO., INC., "Cel-O-Seal" and "Vexar" Div. Booth 923. Exhibit of packages demonstrating tamperproof and competitive merchandising advantages that can be gained by using "Cel-O-Seal" cellulose bands on glass-packaged products; new "Vexar" plastic netting as used in packaging products for institutional and industrial markets, such as a stockinette for smoked meats, a cushioning material that will eliminate carton partitions and permit automatic end or side loading of glass-packaged products, and a resilient, moistureresistant material for use in pill bottles. Personnel: M. V. Noble, E. A. Britton, R. L. Smith, R. C. Jenks, D. R. Mc-Gregor, A. K. Botbyl, R. I. Young.

DU PONT, E. I., DE NEMOURS & CO., INC., Film Dept. Booth 921. Exhibit of on-the-market examples of products packaged in company packaging films; high degree of machine efficiency attainable with company films for use in high-speed packaging operations to be emphasized. Personnel: W. M. Farrelly, R. Kaffenberger, P. G. Stephan, H. A. Lesher. Hotel: Sheraton-Cadillac.

DUSENBERY, JOHN, CO., INC. Booth 635. Model 800 slitter-rewinder featuring individually controlled center and surface rewind for each slit strip; Model 820 salvage rewinder; tension controls; laminator. Personnel: J. Dusenbery, R. Young, J. Rienau, H. Hunt, W. Kroel, F. Brombacher.

ECONOMIC MACHINERY CO. Booth 418. Demonstration of automatic labeling at 320 bottles per minute; automatic uncasing at 500 bottles per minute; automatic case packing at 30 per minute; rotary vacuum filler; rotary pressure filler; aerosol pressure filler; automatic case set-up and positioning machine at 20 per minute; also automatic fill-height detection machine. Personnel: G. L. N. Meyer, Jr., S. T. Carter, J. F. Parsons, B. von Mayrhauser, D. L. Taylor, R. C. Poore, W. J. Kastner, W. K. Clarke, A. R. Johnsen, R. G. Nollman, R. J. Geiger, D. R. Phillips, J. F. Fournier, R. K. Larrabee, F. E. Loonam, J. E. Schuler. Hotel:

EKCO-ALCOA CONTAINERS. Booth 323. A new method of filling and hermetically sealing rigid aluminum-foil containers to be displayed. Personnel: J. Carlile, A. Moses, R. Tooker, J. Blane, L. Schumm, T. Leo, N. Mann, T. Carter, R. Angsten, R. Gaulke. Hotel: Statler Hilton.

ELECTRONIC MACHINE PARTS, INC. Booth 700. Exhibit of registration-control equipment for special and standard converting, packaging and filling machines; "One Way" and "Two

Way" correction units featuring singlecomponent reflected light scanner and foil scanner; single and double differential transmissions; 75-HP differential transmissions for registry of pre-printed linerboard on corrugators; also new automatic registration control on flexographic and web-offset printing presses. Personnel: W. T. McAdam, A. Handal, G. Geras. Hotel: Statler Hilton.

ELECTRONIC PROCESSES CORP. Booth 910. Exhibit of new transistorized electronic temperature controls featuring revolutionary concepts of servo indication and epoxy encapsulated circuitry; new 6000 Series indicator; also 9000 Series indicating controller; 7000 Series indicator; also 9000 Series indicating controller. Personnel: K. G. Woolley, L. W. Hoppe.

ELGIN MFG. CO. Booth 639. Exhibit of new Model JVP automatic wrapping machine for use with Vitafilm; new non-stop filling machine with plunging head; Model EZA semi-automatic carton wrapper; also single-valve filling machine. Personnel: G. R. Stevens, A. R. Stevens, E. E. Johnson, W. E. Jensen, W. B. Sanford, D. M. Webster, G. R. Williams. Hotel: Statler Hilton.

ELLIOTT MFG, CO., INC. Booth 749. Exhibit of Model 52-14 fully automatic top and bottom case gluer and sealer; Model 55-115 gluer and vertical sealer; also Model 200 "Labeleer" labeling machine. Personnel: E. J. Derderian, C. E. Cole.

EMHART MFG. CO. Booth 330. Exhibit of carton packer; 455 Glu-Liner case gluer and sealer; 677 Vertiseal vertical compression unit. Personnel: L. E. Johnson, S. W. Capper, A. L. Johnson, L. E. Leyner. Hotel: Statler Hilton.

ERTEL ENGINEERING CORP. Booth 932. Display of new Model "A" automatic straight-line bottle filler available as either a vacuum-filling unit or a gravity-filling unit, electronically controlled; new Model 2HS stainless-steel plate and frame filter. Personnel: F. J. K. Ertel, G. P. Vogel. Hotel: Statler Hilton.

EUROPEAN PACKAGING DIGEST, Div. of French Packaging Institute. Booth 708. Description of services available to American businessmen. Personnel: P. J. Louis.

EXACT WEIGHT SCALE CO. Booth 220. Display of 1205 Selectrol liquid filler; 4601-NW, Shadograph 610-NW. Personnel: R. W. Grant, J. E. Konkle, R. M. Rapp, H. Baumgardner, D. E. Hastings, R. May. Hotel: Pick-Fort Shelby.

EX-CELL-O CORP., Packaging Equipment Div. Booth 535. Exhibit of a high-speed, rotary-type carton converter featuring cutting and scoring units coupled with a roll-over-type roll stand and

automatic splicer; new high-speed, side-seam sealer which uses no glue; flex-ographic imprinting attachment for Gladiator cellophane-window machine. Personnel: W. Stoerger, W. Beaudry, S. Clark, D. Speltz, C. Sharpe, I. Kaufman, D. Annett, E. R. Andre. Hotel: Statler Hilton.

FMC CORP., Packaging Machinery Div. (Stokes & Smith Plant, Hudson-Sharp Plant, Simplex Plant, Kingsbury & Davis Plant). Booth 605. Exhibit of Stokeswrap 1000 pouch maker which automatically forms, fills and seals pillow and four-seal-type pouches from roll stock; Model 600 high-speed checkweigher which receives production from practically any operation, automatically weighs each package "on the fly," then instantly diverts "off-weights" from the line and which can handle open jars, bottles, cans, cartons, flexible pouches and bags up to 3 lbs. at speeds up to 300 per minute; Campbell shrinkwrapping machine which automatically forms, seals and shrinks film around a variety of product shapes and sizes at speeds of 50 to 100 per minute; transparent-lid forming machine which shapes, creases and seals both acetate and polystyrene lids at 1,500 to 1,800 per hour; Model 104 bag maker, 24-in. side-weld machine for polyethylene; Model 208 bag maker for polyethylene with improved stacker and new bottomseal attachment. Personnel: W. R. Huguenin, J. R. Sonneborn, J. Y. Albertson, S. T. Brinton, R. C. Smith, A. J. Olsen, R. E. Jansing, C. J. Gerlach, G. C. Jones, M. W. Smith, J. D. Hoffman, P. D. Bell. *Hotel:* Statler Hil-

FMC CORP., Canning Machinery Div. Booth 624. Exhibit of Model HEC carton set-up for dinners 1 by 7 3/16 by 9 1/8; Sure-Way caser, Model R-200-F. Personnel: T. N. Martin, H. L. Link, J. H. Forshier, W. C. Armstrong, C. K. Wilson, M. W. Ward, D. J. Wolfe, M. Weaks. Hotel: Statler Hilton.

FAIRCHILD'S, INC. Booth 804. Exhibit of Model #33-A multiple-speed automatic electric counting and packing unit. Personnel: P. R. Chamberlain, M. B. Chamberlain.

FAUSTEL, INC. Booth 754. Exhibit of Nu-Tronic polyethylene-bag machine capable of making either side-weld, back-seal or bottom-seal poly bags; drying unit for web-fed presses. Personnel: R. E. Kent, E. P. Gaspardo, R. M. Fahrendorf, D. O. Narten, E. S. Faulls. Hotel: Statler Hilton.

FELINS TYING MACHINE CO. Booth 105. Package-tying machines for the tying of packages, bundles and boxes to be on exhibit. Personnel: H. Kohler, W. McCambridge, D. Larson, H. Keller. Hotel: Statler Hilton.

FIFE MFG. CO., INC. Booth 114. Recently introduced line of automatic weband cloth-guiding power units featured



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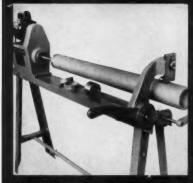
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on a working-model rewinder. Personnel: I. L. Fife, D. G. Fife, N. E. Casida, D. D. Paulsen, N. Lippucci, R. C. Almquist, R. G. Craig, R. L. Fife, R. W. Pickles. Hotel: Balmer Motel.

FILLER MACHINE CO., INC. Booth 534. Exhibit of 12-line "Geyer" heavy-duty Model SL-58 piston-filling machine which can now handle sizes from 4 oz. up to a #10 tin, having in-feed conveyor with automatic feeder, no-container-no-fill, and discharge conveyor. Personnel: J. H. Geyer, W. Hackney, S. Rau. Hotel: Statler Hilton.

FINDLEY, F. G., CO. Booth 342. Joint exhibit with Southern Adhesives Corp. and Union Paste Co. featuring advantages offered by the wide range of packaging and converting adhesives manufactured by these companies; representative packages, packaged items and converted products on which the adhesives are used; technical data available on adhesives for all packaging operations and for use on all packaging materials and machines; demonstration of hot-melt adhesive being run in an Acumeter applicator; special heat-sealing equipment for sealing substrates on which this adhesive has been applied. Personnel: C. Bickel, O. Bronn, H. Fedler, R. Findley, R. Kline, B. Sanson. Hotel: Detroit-Leland.

FISCHBEIN DAVE, CO. Booth 730. Portable and stationary bag-closing machines for closing filled textile and multiwall paper bags on display. Personnel: G. Fischbein, H. Fischbein, S. Shark. Hotel: Sheraton-Cadillac.

FOOD & DRUG PACKAGING. Booth 213. Editors available for meetings with food and drug manufacturers. Personnel: T, Clarke, J. Frango, J. Mittag, D. Raffles, T. Federico, G. Lehman, D. Gussow, B. Gussow, H. Friedman, P. Wood, D. Zoellner. Hotel: Sheraton-Cadillac.

FRENCH PACKAGING INSTITUTE, European Packaging Digest Div. (See European Packaging Digest.)

FRY, GEORGE H., CO. Booth 346. Exhibit of fully automatic paper-bag closing line settling contents of bag, tucking gusset-style paper bag, and heat sealing and gluing flat-top package; Model V30A package vibrator for settling, compacting and conveying packages containing powders and granular products; conveyor Model GS54-10C high-speed closing of paper bags, heat sealing and/or gluing plus two folds for secure closure; vibrator, automatic tucker and closing machine settling, tucking and closing gusset-style paper bags, trimming excess paper and gluing double (drug) fold. Personnel: G. H. Fry, F. Koch, L. G. Hoyos, J. Zimmerli, R. Morceau. *Hotel:* Pick-Fort Shelby.

FULLER, H. B., CO. Booth 748. Specific applications of industrial adhesives [Continued on page 262]

What?

Feed all these different sized cases, in random order, into one automatic case

sealing installation?

Yes! It's being done. The Omnimatic-Rotopress automatically seals and discharges corrugated shipping containers of widely varying dimensions, fed to it in random order, at speeds up to 20 cases per minute. A choice of pre-set discharge patterns permits the simultaneous use of as many as five different Rotopress discharge stations, with sealed cases of different heights automatically discharged to separate takeaway conveyors. The G.E. installation shown below, employing a unique circular compression unit, occupies only 144.9 square feet, and permits random feeding of cases that may vary in length from 8" to 30", in width from 6" to 22", and in height from 6" to 18". This machine can be built to accommodate your particular range of case sizes.



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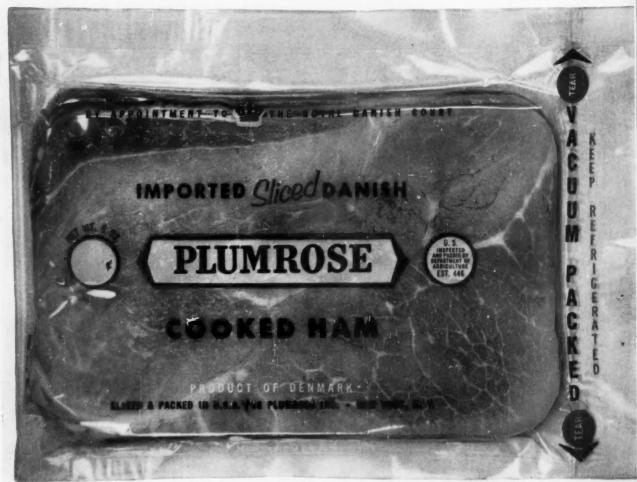
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ing Corporation, for these reasons—its excellent adhesion to polymer coated polyester film . . . superior coating uniformity . . . freedom from odor . . . and high clarity. Monsanto Polyethylene 406 also meets FDA specifications for food contact use.

For more information on Monsanto Polyethylene extrusion coating resins, write to Monsanto Chemical Company, Plastics Division, Springfield 2, Massachusetts.



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In one automatic operation flat printed blanks become perfectly squared, solidly glued boxes for shoes, underwear, corsets, games, candy, etc.—boxes with turned-over ends and finished edges all around, made from double-walled or laminated blanks. Regular glued-end single wall boxes may also be made. A very wide size range can be produced on the one machine.

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[Continued from page 258]

with emphasis on hot-melt adhesives, glued-lap adhesives and an all-purpose folding-carton glue; also new clear bot-tle gum. Personnel: R. E. Smith, R. B. Jamison, J. Watt, H. B. Fuller, Jr., J. McIntyre, F. Durham, C. Cramer, R. Coleman. Hotel: Carillon.

GENERAL CORRUGATED MACHINERY CO. INC. Booth 916. Exhibit of new Mighty Midget case sealer Model #950 with new concept in adhesive application enabling machine to index cases, close top flaps and complete scaling operation on average-size cases at speeds up to 50 per minute in an overall machine length of only 9 ft. Personnel: F. A. Kruglinski, P. Bergstrom, W. Hartung, E. J. Kovaes, J. A. Miller, F. Cisternino, H. Thurnau, J. Moriak.

GENERAL FOOD EQUIPMENT, INC. Booth 952. Exhibit of integrated packaging line consisting of universal case packer, spray gluer and compression unit; Multi-Pak case packer; also bottle-inspection unit. Personnel: L. Russell, T. Marquis. Hotel: Statler Hilton.

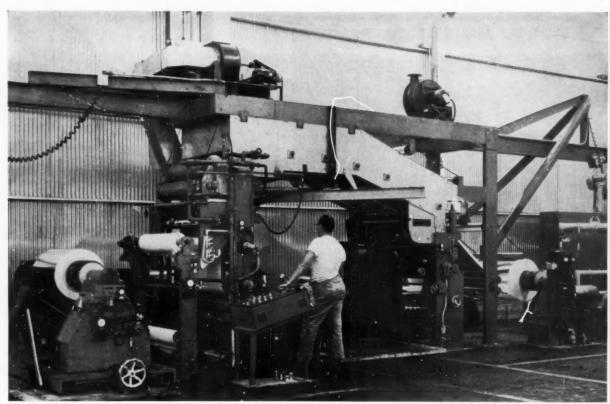
GENERAL PACKAGING EQUIP-MENT CO. Booth 230. Three new formfill packagers on display. Personnel: G. A. Perlitz, D. H. Zwight, L. Heemer, W. E. Fant, J. C. Hale, D. S. Shields, D. E. Kobick, W. E. Aaker. Hotel: Statler Hilton.

GOTTSCHO, ADOLPH, INC. Booth 519. Exhibit of 24 different package coding, marking and imprinting machines including such new developments as the "790 Rolaprinter" for imprinting large areas on corrugated cases; "470 Rolacoder" for coding case and box bottoms; "Model T Dry Process Wrapaprinta" for imprinting hard-to-print flexible materials on wrapping, bag and pouch machines; "Indentacoda" for indenting codes on carton flaps during cartoning operation. Personnel: I. Gottscho, F. Meninger, P. Taylor, P. Schroeder, H. R. Lamken, J. Madden, L. Talarico, C. Plasko, W. E. Haberland. Hotel: Sheraton-Cadillac.

GRACE W. R., & CO., Cryovac Equipment Div. Booth 615. Exhibit of SCM-IV shrink-cover machine to apply a sheet of Cryovac shrinking film over a rigid container; automatic wrapping perimeter sealing unit and automatic shrinking unit combination to tightly enclose all rigid, flat packages. Personnel: W. J. Rothfuss, J. A. Kelley, J. C. Tutundgy, J. Lasoff, J. S. Cook, P. J. Vowles, Sr. Hotel: Cadillac House.

GRIFFIN-RUTGERS, INC. Booth 117. Display of Codedge label-dating and coding machine for bottlers, food, drug and cosmetic manufacturers.

HAMAC · HANSELLA MACHINERY CORP, Booth 839. High-speed candy wrapper type 25/30 on display. Personnel: A. A. Henkel, K. Beyertz, J. L.



Inta-Roto WB-500 wax bleed laminator mounting foil on paper in ALCOA plant at Davenport, Iowa.

ALCOA "Extremely Pleased" with INTA-ROTO WB-500 Laminator

Concerning the new Inta-Roto wax bleed laminator now in use by ALCOA at Davenport, Iowa, Glen L. Phillips, Superintendent of the Foil Mill Division, reports:

"In the six months we have had our Inta-Roto WB-500 laminator in operation, we have been extremely well pleased with its performance. The quality and productivity obtained have been most satisfactory. Our Operators and Supervisors all like the equipment because it is relatively simple to set up, adjust, operate, and clean up."

The Inta-Roto WB-500 is designed to produce a variety of "strike through" materials, double and triple laminations, for packaging that assures freshness and long life for cookies, mixes, and perishables of all kinds. Foil can be print-treated for adherence of gravure inks, or coated with vinyl lacquers. WB-500 operates at speeds up to 1,000 feet per minute. Standard web widths are 42" and 48".

Like all Inta-Roto machines for the converter, your WB-500 is completely assembled and test-run in our plant before shipment . . . assuring easier, quicker setting up, and earlier production in your plant!

For the location of the WB-500 or other Inta-Roto laminator installations near you . . . for a demonstration in our plant . . . or information, write, call or wire today!

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containers of any size or type. The E-Z Air Cleaner is ideal for semi-automatic packaging operations. Small, portable. Containers are inverted over air valves, two at a time, up to 40 per min. Fast, efficient. Write for the "E-Z Bulletin."



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1126

Raffetto, Jr., W. Kamp, C. G. Cockinos, G. Hislop, Jr., J. Greens, J. Collins, G. Schmidt. *Hotel*: Detroit-Leland.

HAYSSEN MFG. CO. Booth 319. New "Expand-O-Matic" Compak form, fill, seal unit for high-speed flexible packaging with both cellophane and polyethylene; two new Rotary Shear high-speed polyethylene carton overwrapping machines; new "RT3" horizontal pouchmaking machine; also "Pac-Form" for completely automatic carton set-up introducing an entire new line of company machinery. Personnel: J. C. Johnston, R. C. James, F. E. Pringle, H. L. Gibbs, Jr. Hotel: Cadillac House.

HAYWOOD PUBLISHING CO. Booth 720. Personnel: M. Haywood, Jr., M. O. Pottlitzer, E. Elliott, J. A. Weber, D. Dean, T. Gillies, J. J. Hallorra, T. R. Warren, F. M. O'Callaghan, M. R. O'Hara. Hotel: Detroit-Leland.

HEINRICH EQUIPMENT CORP. Booth 440. Exhibit of latest redesigned model "Lilliput-62" narrow-width flexographic roll press with two-station unwinder, two-station friction rewinder, slitting and overhead drying system; representative assortment of handle bags, handled on Model "T-1441" handle-forming and gluing machine; samples of polyethylene bags printed, gusseted, sealed and cut by a new inline manufacturing technique. Personnel: K. R. Sunderhauf, H. P. John, P. E. Martin, M. Schaule, A. Finke. Hotel: Statler Hilton.

HESSER MASCHINENFABRIK, A. G. Booth 437. Exhibit of fully automatic machine, for packaging such products as salt into single cartons, which is equipped with volumetric plate-type filler, seal-spout applicator and connected cellophane wrapper which can work at speeds of about 80 packages per minute. Personnel: U. Bauder, H. Kappus, E. Baisch, E. J. Griffin, H. Parsonage, O. A. Tomei, R. J. Clayton, D. T. Hendrix, J. G. Swope, J. R. Uebler, H. D. Dibble, A. Heybroek, P. M. Pottetti, J. C. Hale, F. C. Shirriff, C. Downer. Hotel: Cadillac House Motcl.

HI-SPEED CHECKWEIGHER CO., INC. Booth 729. Display of standard CV-2 converger for empty or full cartons with Geneva drive principle; Model T-59 checkweigher designed for use with vertical pouch fillers or a horizontal pouch filler with a straight drop-off arrangement, and equipped with hingetype weighing platform; Model PA-57 checkweigher built for the Bartelt filling machine; Model CM-60 checkweigher for handling variety of carton sizes and weights at speeds of 150 to 225 or more cartons per minute; weight indicator-recorder, which can be used in conjunction with any of the checkweighers shown, features easily read dial calibrated in 1-gm. increments which will hold weight shown and upon presentation of the next package will assume weight of that package and hold it for the complete cycle; Model A-57 checkweigher for small cartons at speeds up to 150 cartons per minute; also level detector with a new level checking device operating in conjunction with Model A-57 checkweigher to provide height-of-fill check with weight check for complete quality control. Personnel: C. R. Pettis, Jr., V. Del Rosso, H. Corrigan, R. O'Connor, J. Neary, L. Corbit, G. P. Schaeffer, D. S. Shields, H. R. Stewart, L. F. Shattuck, D. Shattuck, L. R. Rodgers, D. Dewhart, F. Born, B. Wallace, T. C. Fenton, J. Knam. Hotel: Statler Hilton.

HOBBS MFG. CO. Booth 138. Exhibit of Model 2CTHM75-DCS cantilevered turret winder with DC-powered "Vers-A-Wind" drive for use with film-extrusion lines and adaptable for use with casting machines, printing presses and packaging applications where webs up to 24 in. wide are processed and control tension is important; CHP winding drives, basic tension-control system for such applications as wind-ups for printing presses, embossers, laminators, etc.; Model 1FP400 single-shaft winder for roll-to-roll winding applications; Autogil automatic roll-fed guillotine cutters with Model 5, Type "L" machine. Personnel: H. K. Lambert, R. P. Simoncini, R. O. Winer, S. V. Olson, Hotel: Pick-Fort Shelby.

HOLLANDER, ALLEN, CO., INC. Booth 704. Exhibit of new automatic pressure-sensitive label dispenser that accurately applies labels on envelopes, cards, forms, etc., at a speed of 3,600 per hour, working in conjunction with an IBM 407 imprinter; also unusual applications of pressure-sensitive labels including fan-fold and pin-feed varieties. Personnel: S. A. Hollander, R. Fagan, C. Gildehaus, B. McCarty, W. R. Rockhold. Hotel: Statler Hilton.

HORIX MFG. CO. Booth 632. Display of new high-speed filler, featuring special container handling and new inmotion fill-height adjustment. Personnel: Mrs. F. B. Fairbanks, F. B. Fairbanks, Jr., W. A. Grove, W. H. Bulcao, R. McWilliam, R. Reno, R. G. Wirthlin. Hotel: Statler Hilton.

HUNTINGDON INDUSTRIES INC. Booth 538. Glue-spray kit for corrugated-case sealing machines, mounted to show principle of spray application; operation of Traymaker making corrugated tote boxes which will be available free to visitors; backdrop showing application of Boxmaker and Formpacker. Personnel: E. Marshall, J. Honeysett, R. Donat, J. Mayhew. Hotel: Pick-Fort Shelby.

ILLUMITRONIC SYSTEMS CORP. Booth 944. Introduction of new Model UWR-1 compact underweight rejector for detection and rejection of underweight closed containers; also line of



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WS <u>USE-EASY</u> tips and tubes glue down repeat sales; make every sales contact stick.



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Pleasant 2-0791

automatic checkweighers, weight monitors and weight classifiers. Personnel: H. Berkley, R. Underwood.

INTA-ROTO MACHINE CO., INC. Booth 823. Exhibit of Model K. S. 7-A slitter-winder for processing lightweight materials of uneven caliper, films, laminated materials and printed papers employing either shear-cut or razor-blade method of slitting to handle maximum web width of 52 in. with 40-in.-diameter unwind roll which will rewind rolls up to 20 in. in diameter on 3-in. cores at speeds up to 1,600 ft. per minute. Personnel: A. H. Merz, O. Rich, E. A. Coudriet, Jr., A. A. Thompson, Jr., J. B. Lankford, J. R. Barnes. Hotel: Sheraton-Cadillac.

ISLAND EQUIPMENT CORP. Booth 627. Operation of rotary unscrambling table with floating-wheel attachment; rotary accumulating table in gold-colored anodized chassis; Walkie-Pushie unscrambler with take-away conveyor, panels of W-P in gold-colored anodized aluminum; narrow belt unitized in gold-colored anodized aluminum; Ultimate light-duty slide-bed-belt conveyor table with variable-speed drive; new miniature pharmaceutical-bottle conveyor with transfer disk; straight-line unscrambler; powered twister with hood in gold-colored anodized aluminum; also Flex-Vac take-away conveyor. Personnel: J. W. Stiles, N. W. Gross, H. Bartnick, F. Keane. Hotel: Sheraton-Cadillac.

IVERS-LEE CO Booth 600. Exhibit of See-V Sealtite, new method of opening unit packages; Conture unit packages in any shape; Supposiform suppository packaging; other machine rental systems. Personnel: J. R. O'Meara, F. E. Doran, J. P. Measday, B. N. Dwor, R. W. Miller. Hotel: Statler Hilton.

JONES, R. A., & CO., INC. Booth 508. Equipment representing complete line of cartoning systems to be featured. Personnel: A. W. Koehlinger, W. Jones, A. E. Motch, S. B. Thomson, J. Dieter, C. Claus, W. Rangnow, D. MacCallum. Hotel: Sheraton-Cadillac.

JUDELSHON, OSCAR I., INC. Booth 104. Demonstration of Model 313 Unicut electronic double-knife roll cutter that will slit a roll of film without rewinding in a fraction of the time normally required and which can be used as an end trimmer where as little as 1/16 in. can be trimmed off the side of a roll. Personnel: B. H. Green, D. N. Judelson. Hotel: Cadillac House Motel.

KARTRIDG PAK CO. Booth 124. Chub machine and aerosol undercap propellant filler on display. Personnel: T. J. Rink, A. Mackenzie, J. F. Schuette, R. Raufeisen, R. Dorr, C. N. LeBeau. Hotel: Pick-Fort Shelby.

KIDDER PRESS CO., INC. Booth 217. Admatic projector showing colored

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Vertrod is the oldest manufacturer of Thermal Impulse Heat Sealers. Our complete line of highly efficient sealers are designed to meet most sealing requirements. They deliver uniform positive seals and trimseals without continuous heat. No warm-up periods required. Seals all thermo-plastic materials and laminations such as: Polyethylene, Saran, Pliofilm, Vinyl, Polyvinyl Alcohol, Polyflex, Rigid Vinyl, Nylon, Mylar, Kel-F; Polyurethane Foam, Polystyrene and Acetate. Dependably built, they need a minimum of maintenance and have built-in safety features. Seals can be

made through wrinkles, gussets, liquids and powders. Hand, foot-pedal and elec-

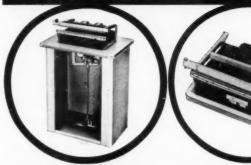
tromagnetic or pneumatic power-operated models up to 96" long. Special sealers made to fit unusual sealing problems.

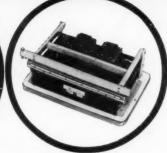
minipute Sealers are manufactured under one or more of the fol-patents: 2,460,460, 2,479,375; 2,509,439; 2,574,094; 2,630,396; 460,796; 2,640,798; 2,650,183; 2,675,034; 2,682,274. Canadian 0 and 496,237. Other Patants Pa



Pioneers of Thermal Impulse Heat Sealing 2037 Utica Avenue, Brooklyn 34, N. Y.

THERMAL IMPULSE HEAT SEALERS FOR ALL FILMS





Styl-O-Matic ROTARY UNSCRAMBLER



Cartons of round bottles, jars, cans or containers are inverted onto the tilt-top table. Contents are pushed onto revolving disk and automatically dispatched in single file to the conveyor. Also available with pallet feed for anti-biotic containers.

Styl-O-Matic STRAIGHTLINE UNSCRAMBLER



Cartons or cases of bottles, jars, cans or containers dumped onto table are instantly unscrambled and regimented into a single file to keep a continuous flow of units on your production line.

Styl-O-Matic High Speed WALKIE-PUSHIE UNSCRAMBLER



Accommodates almost any size or shape container at speeds up to 400-450 per minute. Bottles, jars, cans or containers are unscram-bled without agitation, and no scuffing or con-tact when discharging. High speed, very gentle handling is assured. Available also in twin units.

Styl-O-Matic SURGE TABLE



An accumulating table that is placed at a point in the conveyor production line to re-ceive and hold round bottles, jars, cans or containers when succeeding equipment is momentarily shutdown.

ISLAND EQUIPMENT CORP. Dept. MP11. P.O. Box 380276 · Miami 38, Florida

See our Exhibit PMMI Show, Cobo Hall, Detroit, Booth 627, Nov. 7-10, 1961

advertisement.



PRINT 4,000 SCREEN PROCESS

LABELS an hour



DIRECTLY ON YOUR PRODUCT WITH NEW HIGH SPEED MACHINERY

when you combine these new high printing speeds with fluorescent and metallic inks, high gloss finishes and an infinite variety of novelty effects, you get an unbeatable combination for low cost labeling and decorating.

low cost labeling and decorating.

American will provide a complete set-up including the right equipment, dryer, inks and screens, for printing on any material from small vials to the largest corrugated cartons. No company has more screen process experience—you can count on it.



LET US TEST RUN YOUR JOB

See this equipment in operation printing on your container. There is a nominal set-up charge, the test run is free.

FREE — Send for the 64page equipment catalog, and a 200-page supply catalog, both free.





slides of company products to be featured. *Personnel:* R. Zuckerman, J. Brouwer, E. J. Peal. *Hotel:* Statler Hilton.

KORDITE CO. Booth 337. Exhibit of plain and printed polyethylene roll film; biaxally oriented polypropylene film; representative packages using these films; heavy-duty Uniwall polyethylene bags; also new side-seal bag pack for telesonic machine. Personnel: W. Dodenhoff, G. Jordan, T. Arneberg, L. Murphy, P. Egan, R. Seaman, G. Roche, Hotel: Sheraton-Cadillac.

LABELETTE CO. Booth 744. Display of Model 14C gallon-can labeler; Model 11A Lab-L-Round labeler; Model 11B Lab-L-Round labeler; also Model 12B Lab-L-Round labeler. Personnel: J. G. Wesley, S. J. Groudel, J. Friday, A. Meckenberg, M. Tiemann, T. Hoshall, L. Hollander, W. King, T. C. Fenton, W. S. Bryan. Hotel: Statler Hilton.

LAKSO CO., INC. Booth 446. Exhibit of high-speed multi-track electronic tablet counter; new Model 65 machine that inserts cushion in tablet bottles; Model 52 inverted "U" cottoning machine; C-D 100 device to pre-heat cotton coil; PS-100 pressure-sensitive roll-label dispenser; also Model 56 inspection machine for capsules. Personnel: E. Lakso, G. Lakso, W. Dempsey, J. Dailey, G. Saari, W. Moses. Hotel: Statler Hilton.

LYNCH CORP. Booth 425. Display of Wrap-O-Matic Model A-2; Stretch-Pak Mark III; Morpac Model "BK"; Robo-Wrap Model 100-V-2; Robo-Lift Model AB-1090-TU. Personnel: A. V. Peterson, M. J. Czarniecki, Jr., R. D. Aumend, F. G. Lenhart, R. N. Craven, B. J. Scholl, C. B. Pierce, R. F. McVicker, J. Bartlo, B. H. Lippin, W. H. Millard. Hotel: Statler Hilton

MRM CO. Booth 514. Display of continuous-motion labeling machinery to provide versatile application of adhesive to labels and affixing of labels to metal, glass or plastic containers at speeds of 40 to 150 applications per minute, capable of handling foil, paper and other labels; fully automatic rotary fillers with from 12 to 56 spouts to fill all types of foamy and still liquids in container sizes from fractional ounces through 5-gal. demijohns cans and pails; also semi-automatic straight-line fillers to handle thin through viscous liquids in sizes from fractional ounces through 1-gal. quantities in glass and up to quarts in metal, including all shapes and mouth diameters. Personnel: H. Manas, R. Manas, R. Mishkin, R. W. Siegele, M. Marks, M. Mellone, F. Rossetti. Hotel: Wolverine.

MARATHON, A Div. of American Can Co. Booth 340. Flowing exhibit of the company's flexible and rigid packaging lines.

MARKEM MACHINE CO. Booth 335.

Display of new Model 152A box marker; new Model 157A bakery-label printer; new unitized printing heads; new Model U1036 cylindrical printer; also new rotary printer. *Personnel:* R. C. Mensel, J. Lyon, C. Houghton, D. Emery, A. J. Marshala.

MARSH STENCIL MACHINE CO. Booth 732. Exhibit of new FR-100 fountain roller to stencil mark shipping addresses; full line of current models of stencil-cutting machines and supplies; electric tape machines and attachments; Felt-Point pens, markers and accessory items. Personnel: E. G. Krause. Hotel: Cadillac House Motel.

MATEER, G. DIEHL, CO. Booth 341. Exhibit of standard fully automatic fillers; continuous rotary powder filler operating in production to be featured in color movie. Personnel: G. D. Mateer, Sr., G. D. Mateer, Jr., S. W. Cousley, S. B. Blodgett, F. M. Cross. Hotel: Statler Hilton.

MEAD PACKAGING. Booth 909. Operation of Cluster-Pak machine for cans and glass; display of large number of products that have been merchandised through use of the Cluster-Pak packaging system. Personnel: R. M. O'Hara, W. B. Smith, T. Restin, J. Tenney, G. Davis. Hotel: Statler Hilton.

MEHL MFG. CO. Booth 760. Exhibit of MA packaging system, new low-cost automated packaging system using polyethylene roll stock to package products in polyethylene film in one operation and for producing loose or shrink-fit polyethylene packages around regular, odd-shape or out-sized products of all types. Personnel: J. Mehl, W. Buzek, M. Meyers, R. Cochran. Hotel: Statler Hilton.

MERCURY HEAT SEALING EQUIP-MENT CO. Booth 155. Exhibit of Verti Pak for packaging hardware in polyethylene, complete with turret; VLS-12-D equipped with hole punch, date code and Teflon set-up for attaching header labels to bags; automatic baglabeling machine which will work in conjunction with any form-and-fill machine. Personnel: J. Dreeben, L. Dreeben, W. M. Green, W. M. Scanlon, J. R. Barnes, S. Lask, C. Lask. D. Dreeben. Hotel: Pick-Fort Shelby.

MICHIGAN STATE UNIVERSITY, Packaging Society. Booth 842. Research program in progress to be featured: Project No. 1, Control of Damage in Shipment; Project No. 2, the Folding Resistance of Scored Bending Board as a Factor in High Speed Filling and Cartoning Operations; Project No. 3, Physical Properties of Importance in the Use of Flexible Materials and Combinations Thereof on Packaging Machines; Project No. 4, Sealing of Flexible Materials at High Machine Speeds; Project No. 5, Use of Water-Vapor Permeability Rates in Design for a Definite Shelf Life; Project No. 6, Gas Per-



Modern Doughboy UNIPAX

practically any product—soft goods, hard goods, foods, magazines and catalogs in polyethylene and in shrinkable films. Handles items up to 16" x 16". The packages are snug, trim and neat with high-eye appeal and saleability.

PACKAGES ECONOMICALLY. Unipax saves in two ways. All operations are controlled by one operator. Utilizing center fold film, a snugging device permits sealing close to the package contents. A minimum of film is required.

PACKAGES SWIFTLY. Fast, smooth packaging saves operating time. Unipax production, depending on items packaged, will complete up to 40 cycles per minute. Unipax usually seals top and bottom. It will seal third side as well, when complete closure is required.

PACKAGES DEPENDABLY. Unipax operation is entirely mechanical with no solenoids or air valves. Sealing is accomplished by hot-knife cut off. The entire operation of Unipax is simple and completely dependable.



This is the Unipax in action. When sending your inquiry, we suggest sending product samples for test packaging.

MECHANICAL DIVISION

DOUGHBOY INDUSTRIES, INC.

226 W. 3rd St., New Richmond, Wisconsin

Gentlemen:

We shall appreciate receiving your Technical Bulletin on Unipax (Model CP). We are sending samples of items to be packaged. (Yes______ No_____)

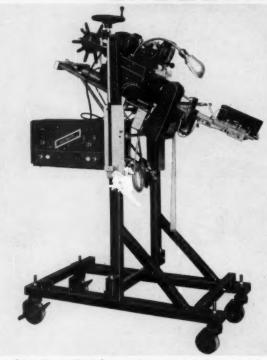
Name_____

Address_

State

FOR AUTOMATICALLY APPLYING PRESSURE SENSITIVE TICKETS OR LABELS TO ANY TYPE PACKAGE

AMSCOMATIC



Ideally suited for automatic feed on most

- Automatic wrapping machines
- Production-line bag packaging set-ups
- Conveyor-fed assembly-line operations

Can also be used for simple manual-feed operation.









For marking or imprinting blank tickets or labels, a Soabar marking machine is incorporated in the Amscomatic 300 to combine imprinting and applying tickets or labels automatically.



- Pressure sensitive tickets or labels in roll form, either permanent or removable type.
- Standard ticket or label sizes ¾" to 3" wide. Length ½" to 2" high. (other ranges available.)









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Representatives in Principal Cities

VISIT OUR BOOTH NO. 611 AT THE PMMI SHOW

This Closure **Packaging Ideas**





• First and Finest PLASTICLIP for All Poly Bags . . .

- · Airtight, Versatile, Re-Usable . . .
- Ideal for Display Racks . . .

This remarkable, patented closure brings a totally new concept to today's packaging. Originated and highly successful on the Continent, KISCO-BIP Clip is now being domestically produced. Foolproof, sanitary, easily attached; it provides airtight protection against humidity, leakage, mildew, deterioration, hardening, temperature changes. Available in a selection of colors, in three practical sizes. KISCO-BIP is used as an ideal bag closure or included in home-product packages for resealing uses.

Slips on-and off-as simple as A-B-C

Write for complete data on how Kisco-Bip can increase Your sales



SCO-BIP CORPORATION

JOHN L. RIE, Inc. Sole Mfrs. and Distributors. 196 Ashburton Ave., Yonkers, N.Y. Phone YOnkers 5-9510 meabilities as a Factor in Package Shelf Life. Personnel: A. J. Panshin, J. W. Goff, H. J. Raphael, H. Lockhart, H. Blake, III.

MILLER HYDRO CO. Booth 315. Display of two case packers packing Mason-type jars and odd-shaped bottles of glass and plastic, Personnel: H. Nussbaum, M. Nussbaum, B. Nussbaum, V. Custer, J. A. Olive. Hotel: Sheraton-Cadillac.

MILLER WRAPPING & SEALING MACHINE CO. Booth 717. Exhibit of Model MPS semi-automatic wrapping machine; Model BL-2-24 sheeting machine; Airtronic polyethylene bag maker with automatic stacker. Personnel: J. Corley, B. Freeman, P. Freeman, F. Kocarek, J. Hagberg, F. Faletti. Hotel: Belmar Motel.

MILPRINT, INC. Booth 819. Exhibit of Kettle-Redi (boil-in) pouches; Milsheen coating; also Milcoat-X paper with high WVT rate. Personnel: F. Stefan, W. Van Vlack, W. Hullinger, D. Faulkner, A. Snapper, C. K. Billeb, A. Miller, G. Everitt. Hotel: Sheraton-Cadillac.

MINNESOTA MINING & MFG. CO., Derby Sealers Div. (See Derby Sealers.)

MODERN PACKAGING. Booth 226.
MODERN PACKAGING Magazine, the Modern Packaging Encyclopedia and other Breskin publications featured; a place to meet and visit with the magazine staff. Personnel: C. A. Breskin, A. S. Cole, L. Stouffer, P. Hagens, T. M. Jones, R. J. Kelsey, W. C. Simms, S. L. Gerrish, R. MacBride, T. B. Breskin, S. Siegel, G. O. Manypenny, P. W. Muller, M. J. Stoller, W. Wood, J. M. Conners, R. C. Beggs, R. H. Rogers, T. O. McDonough, J. Wemple. Hotel: Statler Hilton.

MONARCH MARKING SYSTEM CO. Booth 222. Exhibit of Pouchomatic machine for automatic imprinting and application of pressure-sensitive labels to pouches; Tickopres label-imprinting machine with cut-off knife and stacker; label dispenser; also Tickopres "301" with label rewind. Personnel: D. Dunwoodie, J. I. Kern, J. C. Belle, V. Galloway, A. Best, Sr., D. McLaughlin, J. Gallagher. Hotel: Thunderbird Motel.

MORNINGSTAR · PAISLEY, INC. Booth 108. "The Growing Need for Technical Awareness in Packaging" to be featured theme; new Super-Rez line of adhesives for high-speed carton sealing; window adhesive 87-1866 for bonding acetate, Trycite or cellophane to wide range of uncoated board stocks. Personnel: D. Bookshester, I. G. Nichol, H. Miller, E. Blumberg, R. Hallett, M. Danford.

MOSSTYPE CORP. Booth 211. Display of new model mounter-proofer; "D" mount cylinders; design rollers; various types of rubber printing plates. Personnel: F. Moss, A. R. Bradie, J. Gerard, C. Fillare, H. Salmaggi, J. Le-

COMPETITION

with Fast—Sure—Low Cost BAG-CLOSING EQUIPMENT

BY GEORGE H. FRY COMPANY



If the type of package, or the equipment you are now using is responsible for excessive costs — better profits may be in the bag.

FRY Bag Closing Machines have eased the profit squeeze for many manufacturers who decided to package their products in paper bags, or seek more efficient bag closing equipment. Think about it! Without disturbing product quality, quantity or price, you may quickly find new profits via bag closing equipment by FRY.

*Write for full descriptions and details on all FRY Bag Closing Machines; SET-TLERS, TUCKERS, FOLDERS, GLUERS, SEALERS. Send sample of your bag for FREE packaging analysis.



See us at the PMMI Show Booth No. 346 Nov. 7-10



GEORGE H. FRY COMPANY . 45 E. Second St., Mineola, N.Y.

OGDEN Cartridge Heating Units Speed PACKAGE SEALING Operations

Unequalled for Packaging Machinery Sealing Irons Heater Bars Platens Dies

Plastic Stamping and Forming

Non-Oxidizing
Stainless Steel Sheath



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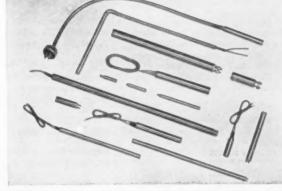


Illustration shows a few of the many Cartridge Heating Units available from Ogden. All popular sizes in stock for immediate delivery. Wherever even, concentrated heat is desired there is an Ogden unit exactly suited to meet your needs. Speed up your package sealing and other operations requiring heating elements . . . with Ogden. Write for new catalog.



AUTOMATIC COIL WINDING . THERMOSTATS . CONTROLS . RELAYS CARTRIDGE, STRIP MICA AND PORCELAIN-TYPE HEATING ELEMENTS

craw, D. Shoup, D. Graper. Hotel: Sheraton-Cadillac.

NASH, J. M., INC. Booth 806. Exhibit of Nash-Pak "500"; also Bell-Pak Personnel: M. Gosewehr, F. Schafer, J. Kraemer.

NATIONAL EQUIPMENT CORP. Booth 925. Exhibit of Short-A-Matic case sealer with guards; also a Rose machine. Personnel: W. H. Kopp, A. Carter, C. Balin, R. Greenberg, J. Debrovner, S. Greenberg. Hotel: Statler Hilton.

NATIONAL STARCH & CHEMICAL CORP. Booth 725. Exhibit of Instant-Lok granular hot-melt adhesives for carton sealing on a new applicator, suggested also for bag seaming, tube-winding and other converting operations; end products coated with Resyn 3600, a polyvinylidene chloride latex for applications to linerless cartons and paperboard containers, as well as coated papers to replace glassine or plastic-film liners in multiwall and specialty sacks and bleached board; Resyn 33-8012 foil-laminating adhesive for bottle labels, greasy-food packages, frozenfood packages, heat-sealed pouches, insulation constructions and heat-embossed decorative packaging. Personnel: F. Greenwall, D. Pascal, S. F. Thune, F. L. Murphy, R. A. DeWolfe, J. C. Clay, R. Spye, B. C. Gordon, W. Sederlund, R. L. Pett, R. Willis, S. Gold, C. Fazioli, J. McClaran, G. Kaufman, G. Stahl, L. Muhlberg, M. Schester, N. Riley, G. W. Burgoyne, M. Stasko, J. Burton. Hotel: Sheraton-Cadillac.

NEW JERSEY MACHINE CORP. Booth 435. Operation of Pony 120 automatic labeler for large label range on round bottles at 120 per minute; Label-Dri Challenger for roll-feed thermoplastic labels at speeds to 140 per minute, including code printing; Pony Label Dri with skip roll-label feed and label-printing attachment for speeds to 60 per minute. Personnel: G. Von Hofe, R. Wellbrock, A. Schaefer, K. Leeson, M. Smith, R. Tank, K. Neimeier, R. Davis, P. Wahnschaff. Hotel: Sheraton-Cadillac.

NEVINS CO. Booth 826. NC-5 "Stretch-Pak" packaging machine on display. Personnel: T. C. Nevins, Sr., T. C. Nevins, Jr., A. R. Cozzolino, P. V. Cianci. Hotel: Statler Hilton.

OLIN MATHIESON CHEMICAL CORP., Packaging Div. Registration Area. "Olin Message Center" to serve as clearing house for messages for both visitors and exhibitors; also Dow Jones ticker to provide latest business, financial and world news. Personnel: C. W. Ellis, C. D. Mollo, G. H. Broomfield, S. A. Libero, J. C. Mertes, R. S. Raup, J. L. Keifer, G. A. Wallace, E. A. Johnson, E. B. Beeks, J. W. Scotton, J. B. Pritchett. Hotel: Statler Hilton.

OLIVER MACHINERY CO. Booth 541. Exhibit of #899E-12 automatic softfilm wrapping machine; #898 semiautomatic wrapper; #804-CA packagetop labeler; also #886-RT vacuum-head transfer labeler. *Personnel:* S. H. Massingham, G. E. Matthews, W. A. Samiec. *Hotel:* Belmar Motel.

OLOFSSON CORP. Booth 705. Highspeed rotary net-weighing machine on display. Personnel: G. A. Olofsson, Jr., D. Noe, D. Garnett, G. A. Olofsson, Sr. Hotel: Statler Hilton.

PACKAGE ENGINEERING. Booth 339. Package Engineering Magazine on display. Personnel: A. Ray, B. Holmgren, H. Vick, D. Olsson, A. M. Schenck, I. F. Megargee, A. Gieseler, W. H. Mathce, D. R. Crane, L. Bergstrom. Hotel: Statler Hilton.

PACKAGE MACHINERY CO. Booth 528. Exhibit of new Transwrap S-750 automatic bag forming, filling and sealing machine running 2-mil polyethylene in packaging macaroni; high-speed Model FFH machine overwrapping frozen-food carton; also new Phin stripstamp machine to operate at 200 bottles per minute. Personnel: L. A. Curtis, H. Mosedale, Jr., L. L. Campbell, W. H. Keil, F. Schrade, W. J. Maybury Jr., W. Gourley, F. Crescenzo, J. Hart, K. Newell, E. Hjelm, R. Lyons, J. Marlowe, T. L. Jefferson, E. McCall, M. Neis, R. Boyle, R. Blumer, J. Egan, L. Evans, J. Bradford, D. Barkman, G. W. McIntyre, J. M. Chalfant, J. Phin, M. Phin. Hotel: Sheraton-Cadillac.

PACKAGING INDUSTRIES LIM-ITED, INC. Booth 640. Exhibit of automatic film top-heat-sealing machine; new automatic blister heat-sealing machine to seal formed blisters to cards; semiautomatic blister heat-sealing equipment sealing film covers to prefilled high-density formed containers and heat sealing oriented styrene covers to pre-filled oriented styrene formed containers. Personnel: C. C. Jacobson, H. A. Rohdin, J. D. Bambara, J. Lindstrom, A. Bambara, Hotel: Statler Hilton.

PAK-RAPID, INC. Booth 706. Highspeed tablet-packaging machine featured. Personnel: B. Karpowicz, J. Irvine, J. Coakley. Hotel: Pick-Fort Shelby.

PAPER CONVERTING MACHINE CO. Booth 817. Detailed illustrations of four-color and six-color flexographic printing presses, as well as details on oil-ink letterpress units featured; also illustrations on matched steel-roll embosser, new orbital log saw, automatic rewinding equipment, folding equipment and core machines. Personnel: R. E. Small, T. C. Ketcham, F. L. Volm, C. A. King. Hotel: Detroit-Leland.

PERRY INDUSTRIES. Booth 141. Exhibit of Model 'D" and Model "E" Accofil powder filers; manually operated Lab Gun powder filer; rotary accumulator; rotary unscrambler; small conveyor for pharmaceutical vials, vibratory powder feeder; Peristopper

vial-stoppering machine; liquid filler. Personnel: S. Sack, J. E. Greengarde, Jr., W. Grilli. Hotel: Sheraton-Cadillac.

PETERS MACHINERY CO. Booth 515. Exhibit of new Model PG-L carton-and tray-forming and gluing machine; Model SG carton- and tray-forming and gluing machine; also Model CCY-L carton-closing machine. Personnel: H. L. Greene, R. C. Talbot, W. P. Imhoff, E. Rose. Hotel: Statler Hilton.

PLAST-O-CRAFT CO., INC. Booth 157. Exhibit of new model #400a vacuum former for short-run as well as long-run users of blister packaging and any other form of thermoforming which can be sheet fed or roll fed for handling polyethylene, styrene, acetate, butyrate and any thermoforming material; also new trimmer which goes with the conventional four-post press. Personnel: M. M. Arnould.

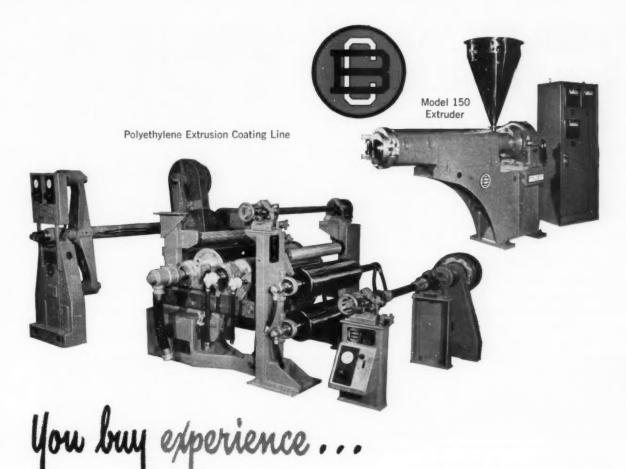
PNEUMATIC SCALE CORP., LTD. Booth 334. Demonstration of automatic high-speed bottling line consisting of unscrambling air cleaning, liquid-filling and screw-capping units handling flask-type containers at speeds upward of 120 per minute; two-head air cleaner; Vacuflow Jr. powder filler; Carbert CU-48 cap tightener; Colletta benchtype labeler; also extensive display of products currently packaged or bottled on company equipment. Personnel: C. J. Ross, R. H. Eiff, R. L. Murphy, E. J. Smith, R. W. Coughlin, N. S. Ross, W. E. Coughlin, L. F. Blackwell, O. H. Hultin, W. B. Powell, H. H. Conklin, D. C. Stoodley, J. Yates, H. Foster. Hotel: Sheraton-Cadillac.

POPPER & SONS, INC. Booth 120. Display of automatic plugging machines demonstrating improved fully automatic piston fillers used for liquid, drug, chemical and cosmetic products; tablet and capsule counter; two-piece capsule sealer; automatic folding-box imprinter. Personnel: R. A. Popper, W. L. Popper, J. M. Cozzoli, H. Feldman, L. Heller. Hotel: Pick-Fort Shelby.

POTDEVIN MACHINE CO. Booth 522. Exhibit of new WebWrap packaging machine which packages from a continuously flowing web and handles a wide range of small products at speeds up to 300 per minute; "LA" 6-in. label activator; Type "Z" 27-in. gluer; "LM" 6-in. label paster; "MG" 4-in. ductor roller margin gluer; "2R" 12-in. coating machine. Personnel: J. H. Richmond, R. A. Potdevin, J. S. Hamilton, J. S. Hawkins, M. B. Jones, H. E. Hummel, C. E. Duerr, A. G. Miller, S. Norton, J. Donohoe. Hotel: Sheraton-Cadillac.

PRATT MFG. CORP. Booth 149. Form-761 form-fill-seal machine on display; also Form-617 rotogravure printer exhibiting two-color unit with sheeter; perforator. Personnel: R. Pratt, A. Backus, C. Wetzel, J. Miller, E. Kezeli. Hotel: Statler Hilton.

PYROXYLIN PRODUCTS, INC. Booth 928. Information and literature on lac-



with Complete Extrusion-Coating-Laminating

Machine Lines by Dilts



Jim Melead, Chief Engineer (left) and Gene Lowey, Manager of Extruder Sales discuss a recent extrusioncoating machine line order.

The best ideas which are constantly offered by leading converters are built into this equipment.

The latest, proven features of induction-heating, precise temperature and pressure control are embodied in the Black-Clawson Aetna-Standard extruder.

The technical knowledge and experience of Dilts in engineering plastic coater-laminators, continuous unwinds and winds is extensive.

Give full responsibility for coordination and engineering of your complete extrusion-coating line to the people who have made so many successful "packaged" installations.

Complete machine lines for pilot or commercial production

WEB WIDTHS:	20" to 134"
ROLL DIAMETERS:	30" to 96"
EXTRUSION RATES:	150 to 2000 lbs. per hr.
SPEEDS:	100 to 1200 fpm

DILTS DIVISION
Fulton, New York
CONVERT WITH CONFIDENCE

BLACK-CLAWSON

"SEND FOR THE MAN FROM WILSOLITE"

NEW art forms bring up new problems. There's a Wilsolite technical service representative ready and able to help you with your particular technical problem.

This modern art form demands unique approaches and techniques. Solving problems in flexible printing requires highly specialized training...your Wilsolite "tech" service man has it.

Wilsolite Technical Service is organized to give you the kind of help or information you want. When you need help or advice, write, wire, or phone the Wilsolite office nearest you. Our background covers every phase of flexography.



GOOD/YEAR

Buna N Engraving Rubbers; Grey and Black; thicknesses 3/32" to 1/2", hardness range 20 to 80 durometer, including special inserts for register control. Unvulcanized rubber in Red, Grey and Black plus Stickyback for plate mounting and Goodyear Related Products.

"WILSOLITE"

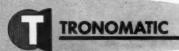
Sheet matrix materials; Red or Black fill-in powders, embossing sheets, resin impregnated papers and cloth for shrink control; and perforated metal. Large stocks always on hand. Ask for prices and samples.

WILSOLITE

C O R P O R A T I O N 1827 Niagara Street, Buffalo 7, New York

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WAREHOUSES COAST TO COAST AND CANADA



Blis pack heat

3 REASONS WHY IT PAYS TO SEAL BLISTERS WITH TRONOMATIC EQUIPMENT

EASE OF HANDLING

BlisTpack (illustrated) is ruggedly constructed, and is operated with a slide-through conveyor. Carrying tray is easily loaded and requires only finger-tip pressure to push it into self-registering sealing position, automatically starting the fast sealing cycle.

HIGH PRODUCTION RATES

While one tray is in sealing position, others are being loaded. Tray ready for sealing ejects the finished tray when it in turn is moved into sealing position. Finished tray is emptied by packer, and slides past loading positions back to sealing station. This unique equipment provides for any number of loading operators.

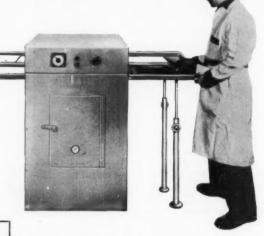
QUALITY HEAT SEALING

The new BlisTpak* method of sealing produces quality blister seals. The blister becomes an integral part of the package. BlisTpak produces the most warp free package with no flange markoff . . only perfect packages with full-vue buy appeal to increase sales.

Booth 111-115

Detroit, Michigan Nov. 7-10th

Or write: Dept. MP-11



TRONOMATIC CORP.

25 Bruckner Blvd., New York 54, N.Y. Mott Haven 5-4600

Manufacturers of plastic forming, molding, fabricating, sealing and cutting equipment

*Pat. Applied For

quer and hot-melt packaging materials used as adhesives, protective coatings, functional coatings for paper, aluminum foil, films, glassine, etc.; adhesives for skin and blister packaging; enveloping compounds; wax additives and fortifying agents for coating and laminating. Personnel: D. Getz, T. Shartle, J. B. Lowry, G. Hollinger, D. Fawkes, Hotel: Pick-Fort Shelby.

REYNOLDS METALS CO. Booth 905. Exhibit of Campbell Wrapper produced by FMC's Hudson-Sharp Div. an automatic high-speed bundler designed for shrink-film multipacking of cans and canisters operating at speeds up to 100 bundles per minute using "Reynolon" oriented PVC film. Personnel: W. J. Vogel, P. Dearborn, J. O. Alexander. Hotel: Sheraton-Cadillac.

RIEGEL PAPER CORP. Booth 610. Complete packaging-service concept through examples of cartons made with "Foldcote" solid bleached cartonboard; flexible packaging including pouches, bags and carton liners in a variety of materials; packaging for textiles in a variety of materials; examples of industrial films and laminations. Personnel: R. L. Kerridge, C. E. Schaehrer, N. W. Postweiler, E. G. Penn, W. E. Butler, W. M. Riegel, W. F. Collins, G. E. Oakley, Jr., W. Endicott, C. W. Hoffman. *Hotel:* Sheraton-Cadillac.

ST. REGIS PAPER CO. Booth 743. Exhibit of new Bax high-speed can-packaging system; bag-packaging machinery; also custom-packaging machinery. Personnel: O. R. Titchenal, K. Schlachter, R M. Browning, I. W. Miller, F. Palmer, W. J. Bunting, L. W. Cline, R. I. Curreri, A. Roetzer, A. Simard, C. Olson, J. T. Walton, J. Kerr. Hotel: Statler Hilton.

SCANDIA PACKAGING MACHIN-ERY CO. Booth 511. Six representative models of latest wrapping-machine designs on display, including the new Model 110 fully automatic multipurpose wrapping machine for film or kraftpaper bundling at low machine investment for medium- and lower-volume producers of a wide variety of products, such as pipe tobacco, cosmetics, drugs and candy, as well as for wrapping single packages, supermarket multiples and holiday packs. Personnel: W. B. Bronander, Jr., E. N. Brooks, D. De Loca, I. Menner, A. W. Anderson. Hotel: Statler Hilton.

SCHJELDAHL, G. T., CO. Booth 801. New 56-in.-wide polyethylene-bag-making machine on display; also several new attachments to increase versatility, broadening its scope for converters. Personnel: G. T. Schjeldahl, J. S. McClintock, F. Ruenzel, T. Glaser, D. Black, M. Novotny. Hotel: Statler Hilton.

SCHOOLER MFG. CO., Div. of Textile Machine Works. Booth 100. Display of latest-type wrapping machine incorporating complete adjustability without change parts. Personnel: J. V. Sutton, W. E. Gary, J. L. Ferguson, Jr., R. Paul, J. Knight, G. Darnell, E. Mercer, J. T. Schooler, K. G. Strunk. Hotel: Statler

SCHROEDER MACHINES CORP. Booth 807. Exhibit of "Quadnumatic" automatic case opener, former, packer and sealer; "Quadnumatic DeLuxe," fabricated entirely of stainless steel, to open, form, pack and seal corrugated cases; "Formnumatic" case opener and former which automatically opens, bottom seals and forms the case for delivery for either manual or automatic transportation to the funnel of an existing packer; "Casealer" for automatic glue sealing top and bottom of corrugated case; "Quadnumatic 'Compact'" of stainless steel, approximately 6 in. long and 30 in. wide, complete case opener, former, packer and sealer. Personnel: A. C. Schroeder, B. Nagy, R. F. Schneider, J. S. Bertling, A. C. Schroeder, Jr. Hotel: Cadillac House Motel.

SHOPSIN PAPER CO. Booth 102. Exhibit of foil laminates with a delayedaction heat-seal coating on back; complete line of foil laminations in gold, silver and other colors on gummed and ungummed paper backings in all weights; also foil-laminated materials suitable for tags, seals, carton boards. Personnel: M. Shopsin, S. Shopsin. Hotel: Pick-Fort Shelby.

SIMPLATROL PRODUCTS CORP., Sub. Hobbs Mfg. Co. Booth 140. Exhibit of fixed field clutch size 130, which is 5-in. in diameter and has a static torque rating of 50 lb./ft.

SOUTHERN ADHESIVES CORP. Booth 342. See listing for The F. G. Findley Co. Personnel: R. K. Crowell, E. Rilee. Hotel: Detroit-Leland.

STANFORD ENGINEERING CO. Booth 636. Exhibit of Model 188 doctor machine slitter rewinder, high-speed production unit for paper, film, plastics and foil with cantilever open-end design; complete line of web-guiding units, hydraulic, pneumatic, vacuum, intermediate and unwind rewind; turret unwind stand capable of making flying splice with the push of a button at production speeds. *Personnel*: W. T. Stanford, Wayne T. Stanford, O. E. Stanford, R. W. Payton, G. E. Mansfield, G. W. Keates, D. Van Sluyters, F. Braun, R. Braun. Hotel: Statler Hil-

STEIN, HALL & CO., INC. Booth 142. Display of new extruder to apply hotmelt adhesives to adhere various films at speeds from 200 to 1,000 ft. per minute; hot-melt adhesives for Mylar, polyethylene, cellophane, foil, saran, paper. Hotel: Pick-Fort Shelby.

STOKER H. L., CO. Booth 848. Exhibit of Stok-Aire air pressure large bag packers; DX packer; Model B settler. Personnel: H. Roberts, E. Foster.

SUNDSTRAND-AMERICAN BROACH & MACHINE. Booth 223. Exhibit of Packmaster Model 50-A heat-seal pouchThe world's LINIOR largest stock of . . .



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WRAPPING MACHINES

Package Machinery Models FA, FA2, FA3, and FA4 Automatic Adjustable Wrappers. With and without Electric Eyes. Package Machinery Models FF and FF-H Automatic Wrappers with Electric Eyes. Hayssen Adjustable Automatic Box Wrappers. All types and sizes. With and without Electric Eyes. With and without Electric Eyes. Straight and Angle Infeeds.
Wrap King Models DW, DW-2, DW-4 and M2 Wrappers.
Scandia Model SFS-6F High Speed Automatic Wrappers.
Package Machinery Model CM3 Wrapper.
Package Machinery Model U6 Wrappers. Battle Creek Models 40, 43, 46 and 48 Automatic Adjustable Wrappers. Package Machinery Model U6 Wrappers. Battle Creek Models 40, 43, 46 and 48 Automatic Adjustable Wrappers. Package Machinery Model U6 Wrappers. Package Machinery Model U6 Wrappers. Battle Creek Models 40, 43, 46 and 48 Automatic Adjustable Wrappers. Pak Rapid Model A Wrappers. Pak Rapid Model A Wrappers For Cellophane, with Sheeters.

BAG MAKING AND FILLING MACHINES

Package Machinery Model TWC Trans-wraps for polyethylene, with Net Weight Scales and Electric Eyes. Transparent Wrap Model B Transwrap with Net Weight Scales and Electric Eyes. with Net Weight Scales and Electric Eyes. Stokes and Smith Models AS and BS Stokes-wraps with Volumetric or Auger Feeds and Electric Eyes. Simplex-0-Matic Bag Maker and Filler with Volumetric Feed and Top Label Attachment.

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Pneumatic Scale Co. Automatic Carton-ing Lines consisting of Automatic Feeders. Bottom Sealers, Wax Liners, Fillers and Top Sealers. Also Tite

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Box Set Up and Gluing Machines.
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Closer.
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Cartoners.

Ceco Model A3901 Semi-Automatic Adjustable Carton Sealers with Compression Units.

Brightwood Box Gluing Machines.

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Standard Knapp Model 429 Automatic Top and Bottom (or Top only) Carton Sealers, complete with Compression Units.
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ing machine with a new hole-punch mechanism for automatically cutting a hole in the package seal area for use in pegboard merchandising. *Personnel:* D. Stenberg, A. Craig, C. Kern, B. Ashe, H. Larkin. *Hotel:* Sheraton-Cadillac.

SWIFT & CO., General Adhesive Products Dept. Booth 937. Exhibit of new hot-melt adhesives for high-speed packaging; new adhesives for polypropylene and other films; new bottle-labeling and tax-stamp adhesives; also full line of packaging adhesives. Personnel: H. E. Robinson, S. E. Carroll, W. W. Truxes, C. S. Young, H. R. Adamson, C. W. Cross, J. D. Cockburn, H. Burdick, H. L. Streeper, C. W. Werner, J. G. Halak, G. F. Commander, C. F. Patterson, C. W. McHaffie, W. R. Johnson, W. D. Liddell. Hotel: Sheraton-Cadillac.

TEXTILE MACHINE WORKS, Packomatic Div., Schooler Mfg. Co. Div. Booth 827. Exhibit of a new Packomatic case sealer; Schooler wrapping and bundling machine. Personnel: J. V. Sutton, W. E. Gary, J. L. Ferguson, Jr., R. Paul, J. Knight, G. Darnell, E. Mercer, J. T. Schooler, K. G. Strunk. Hotel: Statler Hilton.

TOLEDO SCALE, Div. of Toledo Scale Corp. Booth 913. Exhibit of checkweigher, Model 1070 industrial scale, automatic batch-control systems, weight recording systems and counting scales. Personnel: W. M. Evans, J. J. McLellan, L. R. Hummel, G. H. Webb.

TOMPKINS' LABEL SERVICE. Booth 606. Company labels shown in actual use on hundreds of diversified products and packages; labels for use with all modern semi-automatic and fully automatic high-speed labeling equipment; pressure-sensitive, heat-seal bag headers; foil, gummed and ungummed continuous-roll and single-cut labels; new ideas in labels with emphasis on latest developments in labeling of all the new-type packaging films and materials; "Pres-To-Mark" marking system for fast coding, pricing and imprinting. Personnel:

J. Tompkins, W. Baile, D. Norris, W. Schlegel, E. Friday. Hotel: Sheraton-Cadillac.

TRIANGLE PACKAGE MACHINERY CO. Booth 619. Model L-22P twin-tube automatic bag making, filling and sealing machine to be featured; also Model L2 single-tube bag making, filling and sealing machine; new Model DR-1 rotary automatic cup machine for salads and cottage cheese, each with many improvements. Hotel: Statler Hilton.

TRONOMATIC CORP, Booth 113. Vacuum-forming, heat-sealing and die-cutting equipment on display. Personnel: J. Swick, J. E. Nester.

UNION PASTE CO. Booth 342. (See The F. G. Findley Co. listing) Personnel: A. B. Crowell, R. Rader, F. Sebbard. Hotel: Detroit-Leland.

UNITED SHOE MACHINERY CORP. Booth 822. Demonstration of Thermo-

grip hot-melt adhesive in cord-like form and its co-engineered applying equipment (by the Lened Mfg. Co.) for carton-closing operations for use particularly by frozen-food and ice-cream industries; representative group of Thermogrip applying equipment in such functions as bag making, bag closing, carton forming and case sealing. Personnel: G. V. Upton, W. J. Blatchford, J. R. Stevens, E. F. Stanton, D. T. Cirillo, G. F. Middendorf, E. R. Dunlap, R. E. Davis. Hotel: Cadillac House.

U. S. AUTOMATIC BOX MACHIN-ERY CO., INC. Booth 414. Operation of universal Brightwood box machine, automatic box-making machine producing turned-over-end boxes for shoes, etc. Personnel: C. C. Fasch, C. Willingham, O. L. Weidmann, O. E. Cote, G. H. Nilsen, A. Melzer, O. W. Wikstrom, Jr. Hotel: Statler Hilton,

U. S. BOTTLERS MACHINERY CO. Booth 234. Exhibit of 24-tube pressure-vacuum filler, with demonstration of a new adaptation for conversion on any of the company's existing rotary vacuum fillers for filling plastic bottles. Personnel: I. H. Risser, C. R. Otters. Hotel: Sheraton-Cadillac.

VAN BUSKIRK & CO., INC. Booth 107. Exhibit of imprinting machine for flat folded cartons; also rotary-head lipstickcase imprinter. Personnel: J. D. Van Buskirk, J. W. Robb, Jr. Hotel: Pick-Fort Shelby.

VERNER, R., & CO., INC. Booth 147. Demonstration of Model FR multipress imprinting-marking machine running flat folded cartons and other items of paper goods and containers requiring an imprint at rate of 7,000 per hour with automatic continuous feeding and letterpress impression to match over-all printing of containers.

VERTROD CORP. Booth 205. Display of hand-operated, foot-pedal and power-operated heat sealers and trim sealers; units up to 8 ft. long for films and foams; new gravity-feed automatic bag closer; special curved seals. Personnel: A. Fener, L. Gross, S. Fener, C. Zimmerman, W. Bailey, N. Meyers, N. Langer, Hotel: Sheraton-Cadillac.

WARNER ELECTRIC BRAKE & CLUTCH CO. Booth 153. Exhibit of Electro-Pack clutch-brake package; Electro-Sheave clutch-pulley package; SF 500, SF 1525 spline drive; miniature and integral brakes and clutches; controls. Personnel: G. R. Harrod, T. O'Brien, R. Vierck, W. Hamlen, W. Trojan, H. J. Huegel, H. Olson, H. Binks, W. Mapes, J. Henderson. Hotel: Statler Hilton.

WELDOTRON CORP. Booth 714. Display of regular and expanded line of thermal-impulse sealing devices; "L" type right-angle multi-seal thermal-impulse sealers that produce packages from poly roll stock or from new shrinkable films; contour sealers that produce shaped packages directly from two webs

of poly or shrink films; electronic sealing devices; expanded line of hot-air welding devices; new line of high-velocity, high-speed conveyorized shrink tunnels to work in conjunction with semi-automatic and automatic overwrap machines; new inexpensive hot-air shrinking device that will produce effective results on shrink film and is suited to small-volume packaging operations; several specially designed sealing devices for difficult materials such as Teflon in gauges up to 40 mils. Personnel: M. Siegel, P. Garrett, J. H. Mullen, J. S. Twaddell.

WESTERN-WAXIDE DIV., Crown Zellerbach Corp. Booth 926. Modern specialty packaging center and newest in laminated materials to be featured; forming and filling of retail-size tearstring pouches with granulated product. Personnel: N. A. Johnson, G. L. Carey, R. F. Dunbrook, K. V. Morrison, G. H. Bowen, O. R. Johnson, W. L. Tait. Hotel: Cadillac House Motel.

WIRTH-RHODES CORP. Booth 752. "Blist-O-Matic" heat-seal machine with automatic card feed and automatic ejector to be on exhibit. Personnel: E. Hirsch, J. Hurell, H. Buck. Hotel: Statler Hilton.

WOLVERINE FLEXOGRAPHIC MFG. CO. Booth 208. Enlarged photographs and many samples of printed material produced on company equipment to be featured. Personnel: H. Nagel, A. J. Dudas. Hotel: Pick-Fort Shelby.

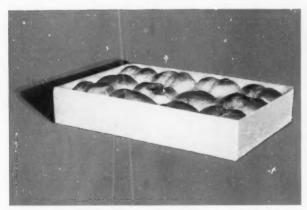
WOODMAN CO., INC. Booth 815. New large-bag automatic form, fill and netweighing unit on display. Personnel: N. W. Heyward, A. H. Forsyth, J. Herrick, B. Cass, F. Berger. Hotel: Statler Hilton.

WRAP-ADE MACHINE CO., INC. Booth 206. Exhibit of fully adjustable, continuous-motion, horizontal unit packager for packaging flat goods; automatic-feed vertical, continuous-motion unit packager for packaging tablets or metal parts; pneumatic jaw sealer for sealing and coding "Catch-Cover" stock. Personnel: A. M. Powell, R. F. Freebody, W. L. McCambridge. Hotel: Statler Hilton.

WRIGHT MACHINERY CO., Div. of Sperry Rand Corp. Booth 507. Exhibit of new large-volume weigher for weighing and discharging multi-dimensional products of high cubic density in weights of from 3 oz. to 1 lb. with one dump; Pak-Rapid wrapping machine, Model WHC, which forms a pouch-type package in sizes from 1 by 1 in. to 6 by 8 in, around hard goods such as hardware, automotive parts and electronic components; Hamac-Hansella 125C Transwrap for automatically making bags, weighing, filling and sealing pillow-type packages; Junior Weigher; also Wrightronic checkweigher. Personnel: H. C. Smith, I. P. Ritschel, J. B. Mahoney, T. E. Perry, W. T. Vaughan, A. N. Wiley, J. C. Hydrick, A. G. Massey. Hotel: Statler Hilton.

SOLUTIONS TO 4 COMMON LAMINATING PROBLEMS

(and how the Arabol man can provide them)



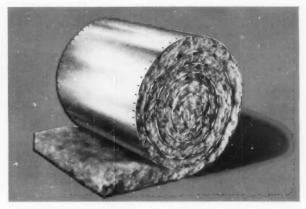
1. GREASE RESISTANT LINER TO PAPERBOARD—Millions of boxes are used monthly by the bakery trade. A large percentage of these are made by adhering a grease resistant liner to paperboard. Adequately bonding these surfaces depends on the rate of set and the moisture and grease resistance of the adhesive, so that a non-wrinkling, non-curling lamination is produced. If you have experienced problems in this area or in the adhesion of difficult materials, talk them over with your Arabol man. He can help you.



2. GLASSINE TO KRAFT PAPER—Holding moisture out—and aroma in—is the reason for preferring this material in packaging coffee, spices and the like. The bouquet that follows the opening of a new package proves the point. Bonding the glassine "liner" to the kraft stock is economical, effective and easy with adhesives formulated for this purpose by Arabol. Let your Arabol man show you the different types of adhesives, and demonstrate their superiority for your specific applications.



3. CELLOPHANE TO POLYETHYLENE — One of the most widely used packaging materials in the food field is laminated cellophane and gluable polyethylene. Adequate bonding of these materials demands an adhesive with three distinctive properties: 1. Good adherence. 2. Transparency. 3. Stability against wide-temperature changes. There are a number of adhesives in the Arabol family that fulfill these requirements... consult your Arabol man. He'll be glad to tell you about them.



4. FIBERGLAS TO POLYVINYL CHLORIDE—Because of the nature of both materials, these increasingly popular insulating materials can bring bonding problems — blistering, bleed-through and mold growth sometimes develop. The plastic film (or even foil) does not readily take to average adhesives. However, there is one special emulsion adhesive which is highly effective for economical and durable bonding of the two difficult surfaces. Your Arabol man will be glad to talk with you about it,

INCREASE YOUR ADHESIVE KNOW-HOW ... Read our informative quarterly bulletin, the Arabol Adhesive Advisor, filled with facts, news and views on the adhesives industry. It offers valuable time and money-saving tips, culled from Arabol's 76 years of adhesive experience. Write on your letterhead to: Editor, Arabol Adhesive Advisor, 110 East 42nd Street, New York 17, N. Y. There will be no charge, of course.



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FOR SALE — BARTELT PACKAGING Machine complete with mateer, auger filler, magic-eye, vacuum pump, 3" bag clamps, and additional set of clamps. Excellent condition. Machine in operation. Reasonable price. Available for immediate delivery. Reply Box 1100, Modern Packaging.

FOR SALE—One J. L. Ferguson Model 9
Top and Bottom Carton Sealer, 4-in-line volumetric filler, complete with drives and
motors. Excellent condition, Has been used
for filling 3 ounce cartons of beans, corn and
peas. Reply Box 1105, Modern Packaging.

SIMPLEX POUCH MACHINE. Model 7-24, Serial #3273, three years old used very little, in excellent condition. Vertical unwind and double roll attachment. No electric eye. Reasonable. Box 1108, Modern Packaging.

FOR SALE PACKAGING EQUIPMENT—Package Machinery Company Model FA4 Overwrap Machine equipped with belt infeed, electric eye, side belt discharge, Teflon Header Plates complete with drives rated speed 35 to 65 pks per min. Automation weighers and filler machines Model M2 as manufactured by Wright Machine Company. This equipment was used for boxing and bagging charcoal briquettes. It also includes F21 Syntron Vibrating Feeders, Tape dispensers, Frazier Model B-1 Bag Filling Machine, Hoppers and Conveyors. This equipment is located at Iron Mountain, Michigan. If interested, write Reynolds Metals Company, 6601 West Broad Street, Richmond, Virginia—Room 222.

Machinery Wanted

WANTED: Used skin pack & vacuum forming machine. Bed size 30" x 60" minimum. Give complete information and price first letter. Reply to Box 1101, Modern Packaging.

Materials Wanted

WANTED: Carloads Foil laminated bleached and unbleached Kraft board scrap, bales or skids on centinuing basis. Reply Box 1110, Modern Packaging.

WANTED TO BUY—Laminated Aluminum Foil Scrap—15-ton lots only; edge trim, die cuttings and skeletons must be baled. Rolls also wanted. U. S. By-Products, 1506 East-ern, Kansas City 26, Mo.

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PACKAGING MANAGER—A leader in the packaging industry has an outstanding opportunity in their frozen food packaging line. Must have broad background in production, sales and marketing of frozen food packages. Top salary and full range of employee benefits. Southeastern location. Submit confidential reply to Box 1103, Modern Packaging.

PACKAGING PERSONNEL

Positions filled and secured. A confidential Nationwide Service for employers seeking personnel and individuals seeking new positions. Inquiries invited. Reply to Graphic Arts Employment Service, Inc. Est. 1952. Helen M. Winters, Manager: Dept. PAC-11, 307 East 4th Street, Cincinnati 2, Ohio. Phone CHerry 1-2201.

MANAGER OF FOLDING CARTON DIVI-SION—Nationally known lithographer re-quires experienced folding carton executive to guide the work of the division. Extensive knowledge of production methods, customer servicing and other phases essential. Please reply stating background and salary require-ments to Box 1104, Modern Packaging.

PACKAGING SALESMAN - Major Eastern PACKAGING SALESMAN — Major Eastern paperboard converter is expanding sales in Northern New Jersey, and is seeking experienced folding carton salesmen to develop business in that area. Starting salary open. Compensation potential is high. Our staff knows of this opening. Replies will be held in strict confidence. Send resume to X-74, P.O. Box 2069, Philadelphia 3, Pa.

PACKAGING MACHINE SALESMEN—If you have ever sold any type of packaging item we are interested in you. We have recently introduced our new line of equipment for Shrinkable Films and require capable representation in major areas of the U. S. Extremely high earnings on straight commission in growing field. Please write: Shrink Film Products Corp., 860 Clinton Avenue., Newark, N. J.

PACKAGING SUPVSR—Supervise 10 to 15 set up mechanics. Must have working knowledge of automatic equipment used in cosmetic & pharmaceutical industry. Fillers, cappers, labelers, cartoners, etc. Good oportunity with established growth company in metropolitan New York suburb. Send resume including salary requirements to: Box MP 1117, 125 W. 41 St., N.Y.

CORRESPONDENT, sales service, excellent career opportunity with AAA1 leading con-verter. Flexible packaging experience pre-ferred. Submit resume and salary require-ments to Personnel Dept., Oneida Paper Products, Inc., Clifton, New Jersey.

CONVERTER MECHANIC—wanted for poly bag machines. Must be able to take charge of department and capable of assuming future enlarged responsibilities. New England location. Will pay for relocation. Salary open. Send resume to Box 1106, Modern Packaging.

MANUFACTURERS REPRESENTATIVES — Salesmen of Polyethylene Film. In reply state background, other lines now carried, territory covered. Box 1107, Modern Pack-

FLEXIBLE PACKAGING SALESMAN AND REPRESENTATIVES—We are an established well rated eastern converter specializing in polyethylene. Our modern plant with the very best in high speed flexographic presses and bag making equipment is capable of turning out volume business quickly, efficiently, and economically. We are interested in adding a select number of qualified sales representatives with experience and following. Exceptional opportunity for the right men. Reply held in strictest confidence. Box number 1111, Modern Packaging.

FLEXIBLE PACKAGING SALESMEN—Eastern and Midwestern Territories open. Complete line cellophane, polyethylene, saran, roll stock, bags, sheets, plain and printed. We have quality, service, and competitive prices. . . Only experienced, qualified meneed apply. Lustreprint Corp., 1800 Broadway, Buffalo 12, N. Y.

Situations Wanted

RAPIDLY GROWING Packaging and Plastics Machinery Sales Agency covering New York and Pennsylvania can do justice to one additional well accepted high volume line. If proven record of creative selling, heavy technical background, and wide knowledge of packaging equipment and materials can help your marketing program, write Box 1102, Modern Packaging.

ESTABLISHED MANUFACTURERS REPRE-SENTATIVE In Packaging field exclusively desires additional line in Minnesota, Wiscon-sin, Iowa coverage. Well experienced in Packaging Machinery and Materials. Reply to Box 8007, Saint Paul 13, Minnesota.

I CAN SELL! Point of sale. Packaging— Premiums. Plastics. Seasoned executive with a thorough knowledge of all plastic and printing processes. For the best representa-tion in the metropolitan N. Y. area write to Box 1112. Modern Packaging.

Miscellaneous

NEED AN ART DEPARTMENT in the New York area? Not practical for you to maintain a full-time design department in the East? Let our twenty years of experience serve you on a job basis, a monthly or yearly retainer basis. Roughs, comps, color-separated or composite B&W's. Reply Box 1109, Modern Packaging.

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CP makes available from *one source:* Folding cartons, set-up paper boxes and inserts; rigid plastic boxes, custom injection-molded containers, display cards and spiral wound tubes; molded, vacuum or pressure-formed cavities and inserts; hot stamping, offset and letterpress printing.

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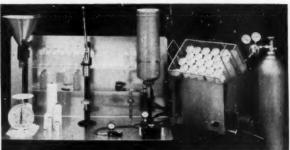
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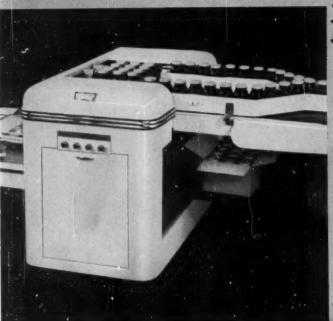
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